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Mark R. Connolly

What's in a Name?

A Historical Look at Native American-Related Nicknames and Symbols at Three U.S. Universities

"Hoyas" "Leathernecks" "Dons" "Hoosiers"—the colorful and sometimes peculiar nicknames of college athletic teams have long been a source of identity and affection for students, staff, faculty, and alumni. Such nicknames are frequently accompanied by equally compelling logos, such as the University of Notre Dame's scrappy leprechaun, the unmistakable Michigan "M," and the silhouette of the Texas Longhorn (Franks, 1982, Lessiter, 1989, Sloan & Watts, 1993). Athletic nicknames and logos are powerful cultural symbols because they not only evoke allegiance to an institution's athletic teams but also may be instrumental in shaping the image of the entire college or university (Gilbert, 1998, Slowikowski, 1993).

However, some nicknames are not so uniformly appreciated. At most recent count, more than 60 colleges and universities currently use nicknames—such as "Indians," "Braves," "Chiefs," "Tribe," and "Savages"—that are deeply disliked because they either refer to Native Americans or are associated with institutional symbols (e.g., logos or mascots) that depict Native Americans in denigrating ways (Rodriguez, 1998).[1] The use of such nicknames and symbols, say their critics, demeans Native Americans by reducing them to caricatures and stereotypes. Yet, to alumni, students, and other faithful supporters of these institutions and their athletic teams, the nicknames and logos represent

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long-standing traditions And they agree that rather than denigrating Native Americans, such nicknames serve to honor tribes that might otherwise be forgotten

As a result of such passionate and contentious opinions about Native American-related nicknames for collegiate athletic teams, many colleges and universities find themselves responding to critics of these symbols as well as to boosters who dearly embrace them (Monaghan, 1992, Shea, 1993) For these institutions, what was originally chosen as a clever nickname for a college sports team often prompts rancorous debate and pitched battles that reach even beyond the campus to involve state and federal policymakers How can a nickname or image that once seemed innocuous and played a key part in fostering institutional affiliation become so divisive? To understand the importance of these nicknames to an institution and its stakeholders, more must be learned about the history of these nicknames—namely, how they were chosen and how they evolved to occupy a place in the institution's culture Such analysis might provide useful insights into not only what social attitudes may have influenced the selection but also to what extent attitudes toward the use of Native American-related nicknames have changed

In this article I examine the origins of three postsecondary institutions' Native American-related nicknames and symbols, trace their evolution, and discuss the controversies that have surrounded them during the past three decades These three particular U S universities were selected for study because the particulars of each case promised to be illuminating (Stake, 1995)

The University of Illinois at Urbana-Champaign (UIUC) is the largest university in the nation with a Native American-related nickname, the "Fighting Illini " The U of I, which enjoys national prestige for both its academic and athletic endeavors, has been steadfast in its refusal to change its nickname or discontinue the performances of its well-known mascot, "Chief Illiniwek," at athletic events The second institution, Miami University in Ohio, is distinctive in that, up until recently, the nickname "Redskins" was formally sanctioned by the Miami Tribe of Oklahoma The university deflected criticism of its use of the nickname and related images by pointing to its unique relationship with the Miami Tribe, which in 1972 issued a statement formally proclaiming its support for the "Redskins" nickname However, in 1996 the leadership of the Miami Tribe voted unanimously to withdraw its endorsement of the nickname, leading the university to change its nickname to "RedHawks " Eastern Michigan University in Ypsilanti was selected as the third case because it changed its nickname from "Hurons" to "Eagles" in 1991 EMU's decision to drop entirely its use of the "Hurons" nickname and associated symbols was met with vociferous and persistent opposition, providing a glimpse of the resistance and consequences that may accompany institutional efforts to abandon Native American-related nicknames

The following questions were used to focus the cases

- When and how were these nicknames chosen, and to what extent did their selection reflect social attitudes of the age?
- How were logos and other symbols (e g , an Indian head) developed and used over time to reinforce the identity suggested by the nickname?
- How have institutions responded to concerns of Native Americans and others who claim that such names and symbols are racist and can no longer be considered appropriate or honorable?

Historical data were gathered using archival documents located at UIUC, MU, and EMU that included yearbooks, newspaper articles, memoranda, and sports information publications This information was supplemented by drawing upon sources of historical information about Native American tribes as well as current and historical information about the three institutions

Because most people know so little about contemporary Native Americans and their history, some background information about the Native American tribe associated with the nickname introduces each case Then, after a brief description of the institution, the selection of the nickname or mascot is examined A summary of the controversy over ending the use of the nickname concludes each case Following the review of the three cases is a discussion of the two social attitudes that likely influenced the selection and promotion of the institutions' nickname and symbols and how these attitudes still shape the justifications for keeping them Finally, implications for institutional policy are discussed

The University of Illinois at Urbana–Champaign

The Illinois Tribes

Prior to the late 18th century, the mid-Mississippi River valley was dominated by the Illinois, or Illini,[2] a confederation of Algonquin-speaking tribes that included the Cahokia, Kaskaskia, Michigamea, Peoria, and Tamaroa As a result of intertribal conflicts spurred by European encroachment, the Illini were nearly eradicated by 1769, and their lands were claimed first by other tribes and then by White settlers moving westward After ceding their remaining land to the U S government in

1803, remaining members of two Illini tribes, the Peoria and the Kaskaskia, were relocated first to Kansas, then to Oklahoma Although the Peoria's status as a federally recognized tribe was terminated by the federal government in 1950, it was eventually restored in 1978 Today, the Peoria Tribe of Oklahoma owns 39 acres in northeastern Oklahoma and has a tribal enrollment of nearly 2000, 400 of whom live in the trust area. The Peoria maintain what little of Illini culture remains, presenting traditional songs and dances of Illini people at tribal ceremonials (Davis, M B , 1994, Grant, 1994, Sultzman, 1997b)

The University

The University of Illinois, the state's land-grant institution, was founded in 1867 as Illinois Industrial University in a field halfway between the Urbana courthouse and the Illinois Central train station in Champaign (Ebert, 1967, Rudolph, 1965/1990) It adopted its current name in 1885, and in 1895 the U of I was one of seven founding institutions of the Intercollegiate Conference of Faculty Representatives, an organization now known as the Big Ten Athletic Conference (Eubanks, 1976, Hyman & White, 1977) Today, the U of I in Urbana-Champaign is the state's flagship campus and among the nation's largest universities It enrolls almost 28,000 undergraduates and 9,000 graduate and professional students (UIUC Office of Public Affairs, 1998), and its alumni association has more than 122,000 members (J Rank, personal communication, December 16, 1999)

"Chief Illiniwek"

The adoption of the nickname "Illini" by the University of Illinois has an uncertain origin It first appeared on the campus in 1874 when the student newspaper changed its name from the *Student* to the *Illini* When this name was first used by the university's athletic teams is not clear, according to the University Archives (R Chapel, personal communication, April 6, 1996) [3] However, although Native American activists and supporters have been critical of the nickname "Fighting Illini," they have tended to focus more of their effort on ending the appearances of "Chief Illiniwek," the university "symbol" Its history at the institution is more certain and its symbolic significance under greater debate

Although published accounts describing the first appearance of "The Chief" disagree on minor details, they all claim that Chief Illiniwek first appeared on October 30, 1926, during half-time of a football game between Illinois and the University of Pennsylvania (Borchers, 1959, Pearson, M , 1995) [4] As part of a stunt, an Illinois student, Lester Leutwiler, appeared in a homemade Indian costume and met at mid-field another

Illinois student dressed in a Quaker outfit as Pennsylvania's founder, William Penn After the two shook hands, Leutwiler became the first to perform what would become an Illinois tradition the dance of Chief Illiniwek [5] The stunt was so well received that Leutwiler was asked to perform the half-time dance at subsequent football matches, which he did through the 1927 season, when Illinois claimed its fourth national football championship in 13 years, and until his graduation in 1929 (Eubanks, 1976)

The second Chief Illiniwek, Webber Borchers, was the first to appear in a costume made by Native Americans After hitchhiking to the Pine Ridge reservation in South Dakota in the summer of 1930, Borchers was put in contact with "an old Indian woman" who agreed to oversee the making of an "authentic" costume When the University of Illinois' football team traveled to New York City to play Army in Yankee Stadium in November 1930, Borchers appeared in the new costume as the Chief, leading the Illinois band down Fifth Avenue prior to the game and performing a dance at half-time (Borchers, 1959) Since then, students playing Chief Illiniwek have worn five different outfits made by Native Americans, the most recent of which was presented to the university in 1983 by Chief Frank Fools Crow of the Oglala-Lakota Sioux (Official Fighting Illini Sports Website, 1998)

Beginning in the late 1960s, increased Indian activism forced the United States to acknowledge the many concerns of Native Americans, and among them was the use of Native American-related nicknames and logos by both professional and collegiate sports teams Institutions of higher education such as Stanford University and Dartmouth College, whose teams were called the "Indians," and the University of Massachusetts, whose teams were named the "Redmen," discontinued the use of their Native American-related nicknames during this era (Monaghan, 1992) The University of Illinois, too, was forced to confront this issue Concern over the use of the Chief was first documented in 1975 Bonnie Fultz, an executive board member of Citizens for the American Indian Movement (AIM), was quoted in the *Illio*, the university's yearbook "Chief Illiniwek is a mockery not only of Indian customs but also of white people's culture" ("A challenge to the Chief," 1975, p 154) AIM member and U of I professor of anthropology Norma Linton added that Chief Illiniwek was an inaccurate composite: "The idea of symbols from several different tribes mashed together angers Indians" ("A challenge to the Chief," 1975, p 154) Efforts to bring an end to Chief Illiniwek during this time had little support The University's only response to AIM's demands was to remove the symbol of Chief Illiniwek from all official stationery ("A challenge to the Chief," 1975) However, this concession became moot just a few years later when the university adopted a new official logo—a depiction of a male Native American head with a feather head dress and chest plate—that was used not only by athletic teams but also throughout the university (McGovern, 1995)

The controversy aroused in the 1970s eventually subsided, and public antipathy toward Chief Illiniwek and the "Fighting Illini" nickname remained muted until the late 1980s, when the movement to force the university to discontinue the use of the Chief again gained momentum In 1989 a student-led group fought to raise the issue with the university's administration (Chang, 1989) Charlene Teters, an UIUC student and Spokane Indian who performed traditional dances, explained in a public debate that the Chief Illiniwek dance was not an authentic Indian dance but "a gymnastics routine" (Anderson, 1989, p 1) Although UIUC Chancellor Morton Weir decided to allow the Chief to remain, he did stipulate that "inappropriate derivatives" of the Indian symbol, such as war paint on the faces of cheerleaders and a painted Roman letter "I" on the Chief's face would no longer be allowed (Davis, R , 1989, Monaghan, 1992) Weir also asked Illini fans to stop wearing costumes and war paint

Because the UIUC chancellor's decision did not quell the controversy, the university's Board of Trustees agreed to address the issue and set university policy regarding the use of the Chief After hearing testimony in October 1990 from two Native American groups that objected to the use of Chief Illiniwek, the United Indian Nation of Oklahoma and the Indian Treaty Rights Committee of Chicago, the board voted 7–1 to keep the Chief (Griffin, 1990, Jouzaitis, 1990, Lederman, 1990) In an effort to articulate its own stance in the campus debate, the UIUC Student Government Association voted 34–2 in March 1991 to approve a resolution stating that the university should cease using the Chief as its symbol (Sherman, 1991)

By this time, the controversy over Chief Illiniwek reached beyond the UIUC campus Fellow Big Ten institutions Minnesota and Wisconsin enacted policies in 1993, stating that their football teams would no longer play teams outside the conference that had Native American nicknames, such as the Florida State Seminoles Although the policies did not apply to these institutions' contests with conference rival Illinois, they nevertheless sent a message about the propriety of such types of team nicknames and symbols ("U of Wisconsin," 1993) In the same year, the University of Iowa forbade images of Native Americans—including Chief Illiniwek—on its campus during its homecoming football game with Illinois because American Indians were offended during a homecoming event two years earlier when students drew pictures of Indians being stabbed ("Two Campuses Debate," 1993)

In 1994 a group of Native Americans affiliated with the university filed a discrimination complaint with the U S Department of Education's Office of Civil Rights (OCR), claiming that the use of the Chief contributed to a racially hostile environment for them (Pearson, R , 1992) In December 1995 the Office of Civil Rights concluded a 20-month investigation and ruled that the use of offensive symbols by universities did not by itself constitute illegal discrimination against Native Americans by the University of Illinois (McGovern, 1995) Although the OCR acknowledged the "perceived offensiveness" of the Chief Illiniwek symbol, the OCR said this was irrelevant to the legal issues in the case, which rested upon finding sufficient evidence that Native Americans were subjected to a racially hostile environment at the Urbana-Champaign campus Because this case was the first the OCR had considered regarding a college or university mascot, it was viewed as a test of how the Education Department would balance free-speech rights against the complaints of minority students University officials, in praising the decision, acknowledged that "some are offended" by the use of the Chief and added that the university would make every effort to continue the tradition "in a respectful manner" (Jaschik, 1995, p A29)

Debate over the continued presence of the Chief has persisted in various forms A documentary titled *In Whose Honor?*, produced and directed by an Illinois alumnus who favored the elimination of Native American-related nicknames and mascots, introduced the university's controversy to a national audience (Rosenstein, 1997) In March 1998 the Urbana-Champaign Faculty-Student Senate voted 97–29 to pass a non-binding resolution to retire the Chief (Olson, 1998). In spite of this and numerous other efforts by students and faculty to demonstrate growing support for dropping the Chief (Farnell, 1998, Gunderson, 1998), the UIUC trustees have remained resolute, indicating they will not consider any further action on the matter of Chief Illiniwek until "substantive, important, and new information" is brought before them (Hendricks, 1998, p 1)

Miami University of Ohio

The Miami Tribes

The Miami Indians, like the Illini, once were an Algonquin-speaking association of tribes who lived around the Great Lakes, primarily in Ohio, Indiana, and Illinois[6] The Miami first made contact with Europeans in 1668, later, they provided the scouts who guided Father Jacques Marquette and Louis Joliet to the Mississippi River in 1673. Like other tribes, the Miami were pushed from their homelands as White settlers moved westward. The Miami lost most of their homeland in Ohio (11.8 million acres) with the signing of the Treaty of Greenville in 1795, and in 1809 (the year Miami University was founded) they ceded another 3 million acres in southern Indiana and Illinois to the United States government. By 1840 the Miami had lost nearly all of their remaining land in Indiana. In 1846 the U.S. government forcefully divided the Miami into two groups. One group of more than 600 Miami were relocated to Kansas territory in 1846 and then moved again to Oklahoma in 1867. The second group of between 500 and 1,500 Miami remained in Indiana, where they gradually lost their land to land speculators and tax sales by 1900. Although both the Miami Tribe of Oklahoma and the Miami Tribe of Indiana were initially accorded federal recognition, an administrative order by the assistant U.S. attorney general terminated the federal recognition of the Indiana Miami in 1897, claiming that the Miami who had been relocated to Oklahoma were the "official" Miami nation. The Oklahoma Miami, with a tribal roll of more than 1,600, currently have 160 acres held in trust near Miami, Oklahoma, where the tribe maintains its tribal headquarters. However, the Indiana Miami, concentrated principally in Allen, Huntington, and Miami counties and numbering more than 6,000 members, have been denied recognition by the U.S. government as recently as 1992 and consequently do not share the education, health care, and legal rights given their Oklahoma kin (Davis, M. B., 1994, Grant, 1994, Sultzman, 1998).

The University

Chartered by the Ohio General Assembly in 1809 and established in the town of Oxford, Miami University enjoys the distinction of being the second oldest state-assisted institution of higher learning west of the Allegheny Mountains and the seventh oldest in the nation. Known as "Miami University" from the time of its inception, the institution was named in honor of the Miami Tribe, who had occupied southwestern Ohio prior to 1795 and were yet living in what would later become the state of Indiana. The Miami were closely associated with the area where the campus was established, to construct one of the university's first halls in 1812, Miami burial mounds had to be leveled (Havighurst, 1969, Rudolph, 1990).

Today, MU enrolls more than 20,000 students, including 16,000 at its Oxford campus and more than 2,000 at each of its Hamilton and Middletown campuses. Considered a "public ivy," MU has been earned national recognition for its outstanding undergraduate instruction (Miami University, 1998)

The "Redskins" Nickname

Intercollegiate athletics started at MU in 1888 Through the first twenty years of organized competition, MU teams had no nicknames, although they adopted their team colors of red and white during this time For the next two decades, sports teams at MU were known by a variety of nicknames—"the Miami Boys," "the Big Reds," "the Reds," and "the Red and Whites" ("A Chronology," 1993, Miami University Office of the President, 1996) In 1928, forty years after MU athletics were first organized, publicity director R J McGinnis began calling the MU teams "Redskins" An alumni newsletter offered this explanation for the choice

> Since the state is overrun with Bearcats, Wildcats, Bobcats, Musketeers, and other such-like small deer, members of the Athletic Department went into a huddle not long ago and decided that Miami teams ought to have a moniker and a symbol As the very name of Miami is taken from an Indian tribe and the term "Big Reds" smacks of Redskins and the warpath, an Indian brave in warlock and feathers was thought to be a suitable insignia This will be found displayed at appropriate places and on appropriate occasions It is hoped that with the injection of the Big Reds into the Buckeye forests some of the wildcats, bearcats, and other cats will be exterminated or at least tamed ("'Big Reds'," 1930, p 22)

During the 1950s the use of Indian caricatures at athletic events became more prominent Students dressed as Indians appeared as part of the marching band, and the band's bass drum featured a cartoonish depiction of an Indian In the 1960s, the band's Indian mascot was replaced with "Hiawabop," a student dressed as a Plains Indian in a war bonnet and painted face who wielded a tomahawk and helped lead cheers ("A Chronology," 1993)

Spurred in part by the increase in Indian activism during the late 1960s, the university established a formal relationship with the Miami Tribe of Oklahoma In 1972, when other institutions including Stanford and Dartmouth were eliminating their Native American-related nicknames, MU president Phillip Shriver appointed a task force to examine the ways in which the university was using Indian symbols and consider whether the "Redskins" nickname should be abandoned Although the review committee voted 5–2 to retain the "Redskins" nickname, it acknowledged the importance of eliminating derogatory caricatures of American Indians In its report dated August 1972, the committee's recommendations included eliminating all derogatory caricatures of Indians (including Hiawabop), using only authentic Indian symbols and artifacts, changing the name of a campus dining hall to something other than "The Redskin Reservation," and creating scholarships for qualified applicants from the Miami tribe ("Report of Ad Hoc,"1972, "A Chronology," 1993).

To show its support of the university and its decision to retain the "Redskins" nickname, the Miami tribe passed a resolution in September 1972 affirming the emerging relationship between it and the university. The resolution stated, in part, the following:

> Whereas, it is our counsel that the name Redskins is a revered and honored name in the eyes and hearts of the people of Miami University, and that it signifies to them as to us the qualities of courage, self-discipline, respect, kindness, honesty, and love exemplified by generations of young athletes, therefore, know all peoples that we of Miami blood are proud to have the name Miami Redskins carried with honor by the athletic representation of Miami University on the playing fields of Mid America and in the arena of the world in international Olympic competition. (Miami Tribe of Oklahoma, 1972, n.p.)

Throughout the 1970s the university implemented many of the recommendations made by the task force, such as the establishment of full scholarships for qualified members of the Miami Tribe of Oklahoma and the creation of a formal liaison between MU and the tribe ("Effort To Dignify," 1972). Hiawabop's replacement, "Chief Miami," made his debut in 1977 at a basketball game between MU and the Eastern Michigan "Hurons" ("Chief Miami To Make," 1977). The MU student who first played the Chief had prepared for his performance by visiting the Miami tribe in Oklahoma and appeared during the MU-EMU game wearing a red-and-white costume created with the assistance of the head of protocol and dance instruction for the Miami Tribe. Like Chief Illiniwek, Chief Miami was considered a dignified representative of an American Indian tribe who performed a ceremonial (and purportedly authentic) dance during athletic competitions.

The Miami Tribe's 1972 endorsement appeared to allay some concerns over the University's use of the "Redskins" nickname. However, the issue reemerged on campus in the early 1990s, when the appearance of both the Cleveland Indians and the Atlanta Braves in the 1993 World Series brought national attention to the issue of using Native American-related nicknames. MU President Paul G. Risser, perhaps influenced by a bill introduced in the Ohio legislature seeking to force teams such as MU's and the Cleveland Indians to drop their American Indian nicknames, promised to address the university's use of the nickname ("Ohio Hopes," 1993). In 1993 the MU campus community discussed whether to replace the "Redskins" nickname, and a university task force was convened to examine the issue The compromise that President Risser subsequently suggested to the university's Board of Trustees reflected the difficulty of crafting a solution that would please all concerned groups Emphasizing the importance of each individual's personal choice to use a term that may or may not be considered disrespectful, Risser asked that

> (a) Only those University athletic organizations and athletic publications currently using the nickname "Redskin" may continue to use the nickname The use of the nickname "Redskin" shall not be expanded beyond representations where it currently appears [and] (b) All other organizations sponsored by the University and official publications of the University not covered above will use the term 'Miami Tribe' as the nickname of the athletic teams The University's linkage with a proud Native American people, even in the very name of the institution, can be preserved with dignity indefinitely through the use of the words "Miami Tribe" (Risser, 1993)

Rather than mandating that the "Redskins" nickname no longer be used, which ran the risk of angering MU alumni and possibly the Miami Tribe, Risser's plan sought to offer a different yet related nickname as an attractive alternative and then encourage individuals to adopt it (Risser, 1996) In time, the president hoped, a collective choice of "Tribe" would lead to the eventual disintegration of "Redskins" In December 1993 the Board of Trustees approved President Risser's plan in a vote of 4–3 ("Board Votes to Accept," 1993, Wolff, 1993) The Miami Tribe, which had been consulted during the decision-making process, had agreed in advance to support the university's decision regardless of the outcome (Leonard, 1993) With the trustees' approval of the president's plan, official campus debate was closed

However, Risser's attempt to craft a "win-win" solution satisfied few in the campus community The director of the Miami Valley Council for Native Americans called the trustees' decision "a cop-out" (Wolff, 1993, p 1), and an MU professor said "Risser left everyone despairing at the sheer wishy-washyness of his non-resolution" (Lesniewski, 1996) The time and energy expended by the campus community to resolve this issue seemed to have borne little meaningful change

In July 1996 the long-standing foundation beneath the university's justification for keeping the "Redskins" nickname—the explicit endorsement of the nickname by the Miami tribal leadership—was suddenly withdrawn In a formal resolution that rescinded its earlier statements of support, the leadership of the Miami Tribe unanimously declared

> Whereas We realize that society changes, and that what was intended to be a tribute to both Miami University and to the Miami Tribe of Oklahoma, is no longer perceived as positive by some members of the Miami Tribe of Oklahoma, Miami University, and society at large,
>
> Therefore, be it resolved that the Miami Tribe of Oklahoma can no longer support the use of the nickname Redskins and [we] suggest that the Board of Trustees of Miami University discontinue the use of Redskins and other Indian related nicknames, in connection with its athletic teams, effective with the end of the 1996–97 academic school year ("Miami Tribe No Longer," 1996, "Miami U Abandons," 1996)

In order to comply with the Miami Tribe's wishes and maintain what the university had long described as its deeply respectful relationship with the Tribe, the MU Board of Trustees voted 7–1 in September 1996 to discard the "Redskins" nickname, following the Tribe's July proclamation by less than two months However, in keeping with a particular request of the Miami Tribe, the university acknowledged it planned to keep its Indian-head logo, such as that appearing on its football stadium (Lesniewski, 1996) Newly appointed president James Garland was charged by the trustees with overseeing the selection of a new nickname In April 1997 the MU trustees voted unanimously to accept "RedHawks" as the new nickname for its athletic teams ("Miami U To Shed," 1997) Although the university began using the new nickname in Fall 1997, a lawsuit was filed in county court seeking to block the nickname change on the grounds that the MU trustees violated Ohio's sunshine law by secretly discussing the nickname change ("Miami U To Shed," 1997)

Eastern Michigan University

The Huron Tribes

The Huron/Wyandot nation once was a powerful federation of four Iroquois tribes that occupied a small portion of the northern banks of the Saint Lawrence River in central Ontario [7] However, their numbers began to drop precipitously following European contact as a result of epidemics of hitherto unknown diseases and a series of trade-related conflicts with other tribes After being nearly wiped out in 1647 in a fierce Iroquois attack, the remaining Wyandot spent the next 50 years wandering as refugees through Wisconsin, Minnesota, and upper Michigan By 1701 the few Hurons who had not been either captured by Iroquois tribes or given refuge by other tribes had settled in the Ohio Valley between what are now the cities of Detroit and Cleveland, there they were known as the Wyandot In March 1842 the Wyandot were forced to cede their lands in Michigan and Ohio to the U S government and were relocated to Kansas in 1845 and later to Oklahoma in 1857 Today, there are two tribes, Oklahoma Wyandot and Kansas Wyandot, only the Oklahoma Tribe has federal recognition, having regained it in 1978 after it was terminated in 1956 The Oklahoma Wyandot have a tribal enrollment of nearly 4,000 and collectively own 192 acres (Davis, M B , 1994, Grant, 1994, Hinsdale, 1930, Sultzman, 1997a)

The University

Michigan State Normal School was founded in 1849 in the town of Ypsilanti, a site on the Huron River where Wyandot burial grounds were located until about 1851, when White residents disinterred "relics" such as skeletons, weapons, and jewelry (Colburn, 1923) Chartered as a teachers college, the institution underwent subsequent name changes in 1899 (Michigan State Normal College), 1956 (Eastern Michigan College), and 1959 (Eastern Michigan University) As Michigan's fifth-largest state-assisted institution, EMU currently offers more than 200 undergraduate and graduate programs to an enrollment of more than 23,000 students Ninety percent of their students are Michigan residents, and roughly 1,500 are graduate students The alumni association claims more than 110,000 known members EMU's athletic teams compete at the NCAA Division I-A level (Eastern Michigan University, 1998a, Eastern Michigan University, 1998b)

The "Hurons" Nickname

Like those of Miami University, EMU's athletics teams were first known by a number of unofficial nicknames such as "Men from Ypsi" and "Normalites " In 1929 the Men's Union of the Michigan State Normal College, in cooperation with the Women's League, initiated a contest to choose an official nickname for the college's sports teams The nickname "Hurons" was selected from student suggestions by a committee of three faculty members, the second-choice nickname was the "Pioneers" ("Nickname Contest," 1929, "Hurons Is Chosen," 1929, Lessiter, 1989)

The "Hurons" nickname remained in use by athletic teams at the Ypsilanti campus despite two subsequent changes of the institution's name Eventually, a logo depicting an Indian was created and used as a graphic identity for both the athletic teams and the institution How EMU responded to complaints about its "Hurons" nickname during the early 1970s is unclear, but like Illinois and Miami, EMU opted to keep its nickname (Franks, 1982)

In 1988 the Michigan Civil Rights Commission recommended that all state educational institutions, including four colleges and universities, discontinue their use of Indian names and logos, which they said were "stereotypic, racist, and discriminatory" ("EMU Drops Nickname," 1991, McLean, 1991) At the request of EMU President William Shelton in February 1989, a campus committee surveyed students, staff, faculty, and alumni and organized debates and discussions regarding a change in the use of the nickname and logo After nearly a year, the committee voted 8–6 to keep both the "Hurons" nickname and Indian-head logo At a September 1990 meeting, the EMU Board of Regents received the committee's recommendation and asked President Shelton to provide them with a final decision on the matter (McLean, 1991)

In January 1991 Shelton subsequently asked the regents to approve the discontinuation of the "Hurons" nickname and authorize the adoption of a new identity As Shelton explained in a statement to the regents, "There was really only one dominant issue which steadfastly drew my attention What is the responsibility of an institution of higher learning? Is there a higher obligation entrusted to the academic community in a democratic society?" His answer "As an educational institution, I do not believe that we can justify the continued use of symbols which we now know offend and denigrate, however unintentionally, members of our community" ("Use of the Huron," 1991) On January 30, 1991, the regents voted unanimously to drop the nickname and the logo ("EMU Drops," 1991, "EMU To Change," 1991)

At their May meeting, the regents selected "Eagles" as the university's new nickname, and in August 1991, they approved a design for a new athletic logo that was created by several EMU students ("EMU Committee Selects," 1991, "EMU Logo Unveiled," 1991)

The decision to replace both the "Hurons" nickname and the Indian-head logo was met with vociferous and persistent opposition Among those protesting their elimination were two representatives of the Huron-Wyandot tribe, Grand Chief Max Gros-Louis and Chief Leaford Bearskin. Gros-Louis said in a letter to President Shelton, "I can assure you the Huron logo of EMU is viewed by our nation as a symbol of honor and integrity" Stating his case more strongly, Bearskin said, "The action taken to discontinue the Huron logo was much more degrading to the culture of my people than leaving it alone and viewing it as a symbol of honor and integrity" ("Once A Huron," n d) Following the decision in May to adopt the "Eagles" nickname, a group known as EMU Huron Restoration, Inc. mounted a campaign to restore the tribe's name and even attempted to secure a legal injunction to prohibit the university from using the "Eagles" nickname and logo ("Huron Fans Consider," 1991, Eshenroder, 1991) Within several months of the decision, more than 75 alumni canceled their memberships in the EMU alumni association, and several alumni angrily removed EMU from their will According to records obtained by Huron Restoration, EMU's total donations dropped from $2 3 million in fiscal 1990 to $1.9 million in fiscal 1991. As one graduate said, "No Hurons, no money" ("Hurons Become Eagles" 1991, "Eastern Michigan U Alumni " 1991) In early 1995, more than three and a half years after the trustees' decision, the university administration warned the Huron Restoration Alumni Chapter to stop using the "Hurons" nickname and logo, saying its continued use amounted to copyright infringement ("Cheer Eagle, Not Indian," 1995) As late as 1996, heated letters about the nickname issue continued to appear in the student newspaper at least weekly. Although the controversy diminished in magnitude, many angry alumni and students continue to promise that "Huron restoration is not a matter of if, but when "

What's in a (Nick)Name?

These three institutions share noteworthy similarities All three are Midwestern, state-assisted institutions that currently provide a large number of degree programs to enrollments of at least 20,000 students At all three universities, their nicknames and symbols sparked bitter and persistent debate between campus stakeholders, leaving the president and institution's governing board with the impossible task of making a decision that would satisfy them all Finally, and perhaps most telling, all three institutions chose and popularized their nicknames (in the case of MU and EMU) or mascot (in the case of UIUC) about the same time, the late 1920s and the early 1930s What was it during this era that permitted, if not encouraged, the adoption of this type of nickname?

Two social trends likely contributed to the selection and development of these institutions' nicknames and symbols The first was the objectification of Native Americans as "good Indians," and the second was the rise of the collegiate "booster culture." Although both social phenomena existed at a national level of consciousness, the latter trend affected postsecondary institutions in particular

Objectification of Native Americans

Since the arrival of Columbus, Euro-Americans have consistently portrayed Native Americans stereotypically (Berkhofer, 1978, Mihesuah, 1996) Whites' misrepresentations of Native Americans were often dualistic, portraying them either as bloodthirsty, "uncivilized" savages or as friendly, subservient "noble" innocents How Native Americans were represented depended largely on the hegemonic objectives of Whites When Euro-Americans sought to dominate the North American continent, their portrayal of Native Americans as being aggressive, wild, godless, and duplicitous justified Euro-American efforts (usually aggressive and duplicitous themselves) to "civilize" the native inhabitants However, around the turn of the 20th century, when the national project to remove Indians was largely completed, Whites grew nostalgic for this "vanished race" Consequently, sympathetic (yet nevertheless stereotypical) representations of Native Americans became more common in popular entertainment, beginning with Wild West shows and continuing in movies and other popular media that featured "sidekick" characters such as the Lone Ranger's, Tonto, who epitomized White notions of Indian trustworthiness, stoicism, stamina, natural athleticism, and dignity in bearing (Berkhofer, 1978, Davis, L R , 1993) These romanticized representations were in turn exploited by commercial businesses to sell products such as Red Cloud chewing tobacco, Indian motorcycles, and Kickapoo Indian medicinal salve (Green, 1979)

It was during an era when popularizing and merchandising the "good" Indian had become commonplace that the nicknames of Miami and Eastern Michigan and the Illinois mascot were chosen In fact, many college sports teams that have adopted Native American nicknames did so during the 1920s (Davis, L R , 1993, Franks, 1982) Whether consciously or unconsciously, choosing these nicknames capitalized on the objectification of the Native Americans and the admiration for the idealized traits associated with Indian stereotypes, such as "endurance, rhythm, time, coordination, sense perception, an uncanny ability to get over any sort of terrain at night, and an enthusiasm for fighting" (Ickes, as cited in Takaki, 1993, p 389) As the explanation given for Miami's adopting the "Redskins" nickname suggests, these institutions wanted names and symbols that reflected desirable characteristics associated with "good" Indians natural athleticism, stamina, stoicism, modesty, bravery, and just enough aggression and ferocity to satisfy the competitive nature of athletics ("'Big Reds'," 1930, p 22)

What this practice meant, however, is that the only Native Americans most Whites ever "knew" were stereotypes appearing in movies, dime novels, and on commercial products Instead of seeing *Native Americans* as fellow human beings who were struggling to resist marginalization, mainstream America saw only *Indians*, frozen in time, a face on an Indian head nickel Rather than dealing with the painful reality of Native Americans' marginalization, Whites preferred to cling to "the White man's Indian"—sentimentalized stereotypes and caricatures of their own construction Indian-related symbols—including product names, nicknames and symbols—did not represent Native Americans, rather, they were souvenirs of White cultural domination

Regional Pride and Booster Culture

The second significant social trend that likely influenced the selection and legitimization of the three institutions' nicknames and symbols was the rise of collegiate athletics and its role in fostering regional pride The decades of the 1920s and 1930s were a propitious time for U S higher education. Not only did student enrollments swell by nearly five times between 1917 and 1937, but America also fell in love with college life and especially collegiate athletics (Michener, 1976, Thelin, 1994) Successful football programs brought national recognition to otherwise undistinguished institutions (e g , the University of Notre Dame, Centre College in Kentucky), and at public universities and colleges, winning football teams also fostered regional pride According to one historian of higher education,"The state university came increasingly to be seen by ambitious governors, state legislators, and mayors as a conscious instrument of aspiration And intercollegiate athletics joined agricultural extension services as a means by which the state university could extend real and symbolic affiliation to all citizens of the state or region" (Thelin, 1994)

As a result of the growing popularity of intercollegiate athletics—first football and later basketball—citizens who had never attended the state university were cheering for its sports teams and claiming them as their own Over time there emerged a group of people who not only shared an outward and enacted affection for their region's university sports teams but also often felt an implicit pride in the region itself Membership in this group of enthusiastic athletic boosters had no admission requirements other than to belong to or affiliate with the region or state, believe in and perpetuate the team's saga or myths, and participate in the group's various rituals, be they attending the team's games, wearing or displaying emblems of support, or simply talking positively and passionately with others about the team's fortunes Because groups of boosters shared values, assumptions, practices, and beliefs, they constructed and participated in what might be called *booster culture*[8]

Although university alumni, often known for their enduring affection and zeal for an institution's athletic teams, were perhaps the most obvious and largest segment of booster culture, others who may have adhered to the culture's tenets and participated in its activities included high-level administrators, undergraduate students, community members, politicians, influential business officers, members of the news media, university staff, and faculty Frequently, those most invested in the booster culture were White upper- and middle-class men Because of significant overlap among their members, booster culture typically shared many values and assumptions, such as prejudices and stereotypes about persons of color, with dominant social groups or cultures (namely, Whites, males, upper-SES, Christians, and heterosexuals) And, booster culture, like dominant social cultures, acted in ways that ensured its survival, although often in unacknowledged or unseen ways When plans to discontinue Native American-related nicknames or symbols became evident, it was those who adhered to booster culture who rose to defend what were to them beloved traditions, in the process making explicit their culture's fundamental values and tacit assumptions

During the 1920s and 1930s, politicians and college administrators both capitalized on the fervor of their region's or state's variation of booster culture Politicians hoping to gain political advantage from being associated with a "winner" regularly directed the attention of their constituency to the successes of their regional teams, and universities benefitted from increased national prestige and regional affiliation in the form of increased financial assistance from state government and other financial supporters Because the valuable resources gained from enthusiastic supporters could be used to build up an institution and enhance its prestige, universities encouraged booster culture, sometimes by picking a nickname such as "Buckeyes," "Sooners," or "Hoosiers" that would appeal to and ostensibly represent the citizens of the entire state

Based on the historical evidence, booster culture appeared to have affected the adoption of the three institutions' nicknames and symbols to different degrees At Michigan State Normal College (i e , Eastern Michigan), where the nickname was selected in a week's time by a faculty committee and did not include input from administrators, alumni, or athletics staff, the process for selecting the school's nickname did not necessarily suggest the direct involvement of "members" of the booster culture Yet, choosing a regionally distinctive nickname like "Hurons" did provide the residents of Ypsilanti and Eastern Michigan with the sort of symbol that could establish and reinforce a region's booster culture At Miami University, the "Redskins" nickname was simply coined by the university's publicity director, and considering the university took its name from the Miami tribe, the nickname then seemed a sensible way to emphasize a distinctive characteristic of the university as well as acknowledge the history of the region and the institution

However, it is at the U of I—which clearly had the most established "big-time" athletics program of the three institutions—where the influence of the booster culture is most evident A founding member of the Big Ten athletic conference, the University of Illinois was regularly playing other well-established football teams such as Chicago, Michigan, Notre Dame, and Penn during the 1920s Illinois attracted a national audience during this era, largely as a result of the remarkable athletic accomplishments of its star football running back Harold “Red” Grange and winning its third and fourth national football championships in 1923 and 1927

It was thus significant to the history of Chief Illiniwek and his role in fostering Illinois booster culture that he debuted before a standing-room-only crowd in a large Eastern city while playing the University of Pennsylvania, a well-respected and formidable opponent that also had a sizable national following The stunt of having “Chief Illiniwek” greet “William Penn” was more than half-time entertainment, it was “East meets Midwest ” Making his first appearance during a decade that represented a critical time in the history of both the institution and its athletic programs, “Chief Illiniwek” was given special symbolic significance by the booster culture, for the Chief represented not only the institution, but—like William Penn—he also represented the state that took his name Consequently, the Chief became a booster icon—a cultural symbol ardently embraced by the U of I boosters that represented the pride they felt for the Illinois athletic teams (and, indirectly, the state and the institution)

These two social trends of the 1920s—romanticized depictions of Native Americans and the emergence of regional boosterism—not only provide a context for better interpreting the institutions’ decisions to adopt Native American-related nicknames and symbols during that era, but they also appear to explain why these institutions defended their nicknames and symbols for so long The reasons used by supporters of the Native American nicknames and symbols at all three institutions were consistently similar and can be distilled into three themes

Claims of respect and cultural sustenance Unlike many institutions that used Native American-related nicknames and symbols, each of the three institutions profiled in this case study associated its nickname and symbols with a particular Native American tribe that formerly lived in the geographical region where the institution is located[9] However, historical records suggest that, other than in name, these universities made no effort to portray the tribes realistically or authentically, rather, these institution’s symbols were nothing more than virtually interchangeable amalgams of headdresses, war paint, fringed buckskin suits, and red-skinned faces Because all Native Americans were obscured by these stereotypes, Whites considered any differences between tribes to be insignificant Such an example is found in Chief Illiniwek’s “authentic” costume, made by Lakota-Sioux, a Great Plains tribe, to wear by someone who is supposedly a chief of an Illini tribe, which belonged to a different culture area (Woodlands) and language family (Algonquin)(Farnell, 1998; Gone, 1995)

When such inaccuracies were exposed, boosters responded by *authenticizing* the symbols, or imbuing them with a false, manufactured authenticity For example, when Chief Hiawabop was exposed as a degrading representation of the Miami tribe, the university responded by making its new mascot, Chief Miami, supposedly more "authentic" with a more realistic costume Likewise, the University of Illinois responded to complaints that the Chief was nothing more than an institutional invention by authenticizing Chief Illiniwek (i e , removing the Chief's inappropriate face paint and giving him a more "realistic" dance) The process of authenticization also included making the spurious distinction between authenticized symbols and traditional team mascots and equating public exhibitions of human mascots with cultural performances, not cheerleading Boosters attached only the noblest intentions to authenticized symbols, saying in effect, "See how respectful and proud we are of Native Americans that we would make such efforts to portray the tribe more realistically" Oftentimes, boosters not only claimed that Native American cultures were being remembered and sustained with authenticized symbols, but they also suggested that doing away with these symbols would encourage forgetting Native Americans' history as well as overlooking their current political interests (Gone, 1995)

However, authenticizing symbols proved not to be a reliable defense for boosters In many cases, protesters asserted that making a mascot or logo less cartoonish and more realistic only emphasized how humiliating and oppressive using a Native American image as a sports logo or half-time cheerleader feels to living Native Americans When defending human mascots, such as Chief Illiniwek, boosters sometimes attempted to dodge this charge by claiming the mascot, although authenticized, was nevertheless fictitious and should not be interpreted as the misrepresentation of an actual human being (Fontenot, 1997) An Illinois state representative and UIUC alumnus implied why an invented mascot was nevertheless important to keep

> I realize that there was probably no such person as Chief Illiniwek, and to some extent, it's mythological, I suppose It's an attempt, I think, by people in Illinois to try to remember a vanished tribe, the Illini tribe, that was apparently annihilated by an opposing Native American tribe in the 1760s—to try to remember their heritage, to do it in a way that's respectful (Rosenstein, 1997)

Defending Native American-related nicknames and images as being respectful of Native Americans was a tactic used most often by boosters holding positions accountable to public constituencies (e g , trustees, legislators, administrators) who wanted to appear sensitive and inclusive while at the same time seeking to retain symbols that objectified Native Americans.

Comparing Native Americans with other groups. One of the most frequent responses given to Native Americans' complaints about being used as nicknames and mascots is that U.S. ethnic groups did not protest being represented by nicknames such as "Fighting Irish" or "Quakers" or "Britons."

> Should ranchers get upset about the Dallas Cowboys? Scandinavians about the Minnesota Vikings? Greeks about the [Michigan State] Spartans? Should people of Irish Catholic descent get upset over the silly fighting leprechaun of Notre Dame? Should the Audubon Society fight over names like the Lions, Tigers, Cardinals, and Orioles? (Begnoche, 1991)

Because Native Americans appeared to be the only group protesting, their concerns were consequently portrayed as being nothing more than cases of "political correctness" and over-sensitivity. Thus, it was suggested, particularly in the popular press, that acknowledging the legitimacy of complaints about Native American nicknames would unleash a flood of similar objections from other over-sensitive groups. In an effort to trivialize the complaints of Native Americans, critics of political correctness made their cases with extreme arguments, as illustrated by one college president's response to nickname controversies:

> Our struggle with the PC Police must surely be nearing its zenith. How else can we justify a serious debate about the political correctness of sports mascots. Let's settle this once and for all. I suggest that all college football teams adopt the names of flowers so that we will not offend anyone, anything, or any political movement, correct or otherwise. How about the Florida State Forget-Me-Nots? Who could be offended by the Illinois Fighting Chrysanthemums? Or the UABegonias? The Ole Miss Marigolds would be far less offensive, as would the UMass Hollyhocks. Let's try the Arkansas State Statice! (Jones, 1993)

To Whites, such arguments, while patently absurd, seemed justifiable, because Whites often did not recognize or acknowledge the uniquely oppressive conditions for Native Americans in the United States. As opponents of Native American-related nicknames were fond to point out, the objectification of other ethnic or religious groups as sport nicknames and mascots (e.g., the Detroit Junglebunnies, the Phoenix Wetbacks, the Boston Popes, the New York Shylocks) would seem unimaginable, especially in light of the efforts people of color had made to eliminate other harmful stereotypes (e.g., "Little Black Sambo"). Yet, the Washington Redskins, Kansas City Chiefs, and Cleveland Indians were considered defensible and "harmless" nicknames. The difference with Native Americans, it appeared, is that they were, as Ward Churchill (1993) writes, "(falsely) perceived as being too few, and therefore too weak, to defend themselves effectively against racist and otherwise offensive behavior" (p. 45). The seeming invisibility of Native Americans was perpetuated by popular media that usually represented historical or contemporary Native Americans as "vanished" mythic figures. In spite of their continued efforts to dispel invidious stereotypes held by the dominant White culture, contemporary Native Americans were nevertheless overlooked in favor of manufactured misrepresentations of them—replicas with no original—that White Americans used to satisfy their nostalgia for a past that never occurred (Davis, L. R., 1993). Speaking to the importance of giving White Americans authentic—not authenticized—representations, one Native American explained:

> It will only be when American people realize that Indians are living, twentieth century, honest-to-goodness human beings that our lives, hopes, ideas, and lands will be respected and appreciated. As long as we are stereotyped and abstracted into college and product names, cowboy movie backgrounds, advertising gimmicks and tourist attractions, we will continue to be unreal shadows on the American scene. Even if our request to abandon the use of our names for college teams is irrational and emotional, we ask that it be honored for one reason that should be sufficient if it is really true that you give us respect. We, the people you call Indians, ask that you not use our name that way. That should be reason enough. (Akwesane Notes, as cited in "Report of Ad Hoc," 1972)

Divided opinions among Native Americans. Not *all* Native Americans agreed that the institutions' nicknames and symbols were inappropriate. In the cases involving both Miami University and Eastern Michigan University, leaders of federally recognized tribes endorsed the use of nicknames and symbols that national organizations such as the American Indian Movement and National Congress of American Indians called offensive and racist. Because the University of Illinois claimed that the Illini were extinct (and also would not acknowledge the Peoria Tribe of Oklahoma as the Illini's cultural heirs), the university could not consult with the tribe it was purportedly representing. Although both national and local Native American advocacy groups pressed the U of I to drop the Chief, the university ignored their protests and instead featured the opinions of a few Native Americans not affiliated with the institution who were willing to state publicly they found nothing offensive about the Chief.

When a particular tribe authorized the continued use of a nickname, or when a Native American individual said publicly that nothing was wrong with such nicknames, boosters would smugly claim, "If even the

Indians themselves are for this, then who can be against us?" The fact that not all Native Americans held identical opinions on the matter of nicknames and symbols was routinely exploited by boosters, who said that the symbols need not be discontinued as long as some Native Americans agreed they were not objectionable. Implicit in this argument seemed to be the assumption that only when *all* Native Americans were in agreement would the institution have to acknowledge the legitimacy of their complaint; thus, the institution need not act until Native Americans resolved the matter for themselves first. Yet, as EMU's Shelton demonstrated, institutional leaders did not need to be immobilized by different opinions among Native Americans; like Shelton, they could comply with the wishes of national representative organizations and take the risk of ignoring or defying other Native Americans who may be more immediately involved in the controversy (Shelton, 1991). However, to disregard Native American opinions in order to make a decision that was supposedly "for their own good" appeared patronizing and further reinforced the power disparity between the predominantly White institution and the Native Americans. Thus, while it was essential to include Native American voices when addressing these controversies, it was a mistake for institutional leaders to rely on getting "the" Native American perspective. And, although numerous organizations and tribes that represented Native Americans nationally said unequivocally that Indian nickname and symbols must be eliminated, boosters continued to focus selectively on dissident voices.

The reasons the three institutions used to justify keeping their Native American-related nicknames and symbols were sorted into three general themes that might be summarized as thus: (1) using such nicknames and symbols is a way of respecting and remembering Native Americans, (2) Native Americans are no different from other groups used for nicknames and symbols, and (3) only a militant minority of Native Americans has a problem; the rest of them do not take offense. These themes revealed that the same social attitudes that shaped the selection and popularization of these nicknames and symbols at the three institutions still lay beneath the arguments used to defend them. That is, booster culture, by arguing that Native American-related nicknames did no harm, continued to objectify Native Americans, trivialize their complaints, and ignore their efforts to be recognized and respected. At the heart of the boosters' defense of objectionable nicknames and symbols was a pervasive belief that Native Americans should be invented and not heard.

Moreover, the powerful positive feelings—e.g., pride, affection, nostalgia—that boosters associated with such misconstructed Native American *symbols* as Chief Illiniwek and the Miami Indian-head logo were clearly not felt about Native American *people*, as boosters often claimed. What these symbols actually represented—and what boosters defended so vehemently—was the strong sense of pride and affiliation boosters felt toward the traditions and values of their *own* culture—of boosterism. Thus, to threaten these dearly loved symbols was to threaten how boosters constructed their own cultural identity.

Why Native American-related Nicknames and Symbols Persist

Over the past decade, numerous institutions—including Miami University and Eastern Michigan University—have replaced Native American-related nicknames and symbols over the objections of their boosters. Although there was some variation, the processes by which institutions arrived at a decision to drop the nickname or symbol followed a consistent pattern: the administration acknowledged the problem, gathered history and input on the issue from an array of campus stakeholders, reviewed the evidence, and following what was often represented as dispassionate and logical deliberation, the administration announced that as an institution of higher learning it must disassociate itself from what was now seen as offensive. However, if discarding a racist nickname was only a matter of implementing this ostensibly linear, rational process, then what explains the continued resistance at nearly sixty institutions?

To understand why some institutions feel justified in their continued use of Native American-related nicknames, important clues can be found in looking at how booster culture strives to preserve itself. To every institution's booster culture, athletic nicknames, colors, and mascots are important cultural symbols that represent shared values and assumptions (e.g., belief in the goodness of the team and university) and foster group affiliation (e.g., fans wear clothing with team colors to indicate team loyalty). Although nicknames and mascots are intended for use by athletic teams, at institutions composed of increasingly heterogeneous groups and perspectives they may be one of the few things that constitute a common institutional identity. In some cases, distinguishing for which group the symbols are meaningful or symbolic is difficult, as when an institution adopts a logo that is used outside of athletic contexts (e.g., on official stationery and publications), paints campus structures with "school colors," or uses a nickname to refer to members of the campus community who are not student athletes. Thus, to the booster culture and perhaps to the entire institution, nicknames, mascots, logos, and other symbols play a fundamental role in constructing a common culture.

However, to Native Americans, Native American-related nicknames and other images also have highly symbolic meanings that are largely offensive and demeaning, same symbol, very different interpretations The often emotional conflict over Native American-related nicknames and symbols, then, is like a "custody battle," a cultural struggle over who is rightfully entitled to control these nicknames and symbols On one hand, the movement to eliminate Native American-related nicknames and symbols is an effort to end the use of racist stereotypes and return control to Native Americans over a cultural element crucial to their survival authentic images and representations of themselves in U S society On the other hand, these same symbols have become embedded within the culture of the boosters, who (1) do not consciously associate the nickname or symbol with modern-day Native Americans, and (2) embrace the nickname or symbol for their own group Thus, it seems inconceivable to boosters that they must sacrifice a central part of their cultural identity and "return" those symbols and images to a group that they hardly recognize As long as boosters of Native American-related nicknames and symbols are unable to "see" Native Americans as they truly are—and not as the stereotypes that are incessantly promoted—then they see little reason to make such a significant cultural sacrifice

Furthermore, although many boosters may hold positions of formal authority at the institutions (e g , campus administrators, trustees, athletics personnel), alumni are boosters who often wield tremendous yet unacknowledged influence in forming institutional policy For, not only do alumni threaten to end their generous contributions when campus leaders begin discussing dropping a controversial nickname, but state-assisted institutions may face the additional pressure of public policymakers (many of whom are true-blue alums) who seek to resist institutional changes, either through force of law or with threats of decreased state allocations Even at institutions (such as UIUC) where faculty and student governance bodies have formally supported efforts to retire its nickname or mascot, the power exercised by booster culture may be nearly impossible to overcome Indeed, in spite of what might cautiously be called a trend among numerous institutions to drop or change Native American-related nicknames or symbols, there is no compelling evidence that this study's lone holdout—UIUC—will join their ranks anytime soon, in spite of continued opposition by numerous students, faculty, staff, and even alumni[10] Because of the tremendous influence booster culture holds at large, state-assisted (in some cases, flagship) institutions as well as in the regions they serve, it is quite likely that large public universities with Native American-related nicknames and symbols (e g., UIUC, Florida State University, the University of Utah) will face the most stubborn and widespread resistance, leaving them among the last to change—if ever

Implications

Native American-related nicknames will continue to be a contentious issue not only for the sixty or so institutions still using them but also for institutions that have recently changed them, such as Miami and Eastern Michigan, where members of the booster culture still feel angry, betrayed, and resentful toward the institution Although each of these institutions may seek to meet the same short-term goal of replacing their nickname or mascot, the larger project of facilitating meaningful changes in campus cultures occurs in different ways at differing rates, particularly when such changes include the redistribution of institutional power and influence It would be overpromising, therefore, to suggest any single recipe for change would work equally well amid the unpredictable and unique factors of each particular institutional context Rather, it would be more helpful to offer campus leaders useful insights gleaned from the particulars of the cases covered in this study

First, the case studies suggest that perhaps the most contentious method for addressing a controversial nickname or symbol is for an administration or governing board to uproot the nickname and symbols all at once, as Eastern Michigan did This is not to say this sort of "shock therapy" might not be effective, but from a cultural perspective, this approach strips an important and influential campus constituency of a part of its identity, which, if taken, they will fight to retain In contrast, a negotiated approach, characterized by some sense of give-and-take, may help the booster culture surrender shared symbols while giving them time to adapt to changes

For example, changing the Miami University nickname while keeping the Indian-head logo indicated the institution's willingness to change an offensive practice but also ameliorated boosters' concerns about losing their cultural symbols Bradley University kept its nickname "Braves" but discontinued using Native American-related symbols, a strategy other institutions have taken ("Bradley To Keep," 1993) Perhaps one of the most creative solutions was crafted by the University of Tennessee at Chattanooga, which had used an Indian logo with the nickname "Moccasins" In 1996, UTC changed its nickname to that of the state bird, "Mockingbirds," which not only provided a new nickname that could enhance regional affiliation but also allowed their sports teams to still be referred to as the "Mocs" ("Changes In Mascots," 1997) Of course, the saying that compromise makes a good umbrella but a poor roof applies here as well Aiming for a "win-win" situation may eventually leave all concerned parties deeply dissatisfied and unwilling to cooperate How much change to impose depends on the institutional context.

Second, gathering and disseminating historical information—about both the symbols and the Native Americans associated with them—is crucial to sustaining a change process Boosters often cleave to inaccurate assumptions about the origin and longevity of their institution's nicknames and symbols However, such misconceptions can be revised with historically sound data, perhaps demonstrating to boosters that nicknames and especially graphic identities (i e , logos and mascots) are not as deeply rooted in the institution or as authentic as they might believe

Likewise, getting boosters to understand how their symbols are stereotypical and racist depends on helping them gain more accurate information about Native Americans as both historical and contemporary peoples As Stage and Manning (1992) explain in their cultural brokering approach to fostering multicultural environments, moving an institution from a predominantly monocultural perspective to one more multicultural depends on creating opportunities for persons to learn to think more contextually and span cultural boundaries To truly respect Native American cultures and experiences, boosters must be encouraged when possible to "walk a mile in another's moccasins," which, however unpleasant, should include learning more about the injustices Whites have perpetrated against Native Americans

Third, once institutional leaders concede that the institution's nickname and symbols are indeed offensive and racist, they often believe (mistakenly) that eliminating the offending nickname will resolve the problem and end the conflict However, to Native Americans, these nicknames and symbols are not causes of prejudice and stereotyping but instead they are reflections of a greater social disorder Consequently, when administrators and trustees see the nickname as the only problem, they are treating only symptoms and not the oppressive attitudes and practices they reflect Because the controversy surrounding a Native American-related nickname can easily become a statewide spectacle, it is not surprising that institutional leaders wish to focus primarily on bringing the controversy to closure However, as an institution of higher education, the college or university should use the controversy as an opportunity to teach its staff, students and faculty how to identify and expose other emblems of discrimination and prejudice

Conclusion

So, what *is* in a name? As far as Native American-related nicknames and associated symbols go, not enough to be concerned about, it seems. When ticking off the most urgent social concerns on U S college campuses—the erosion of affirmative action, an increasing incidence of incivility, violence, and hate speech—offensive nicknames appear much less compelling Presenting this issue to most people outside of higher education, even to well-meaning Whites, often elicits responses ranging from outrage to eye rolling Within the academy, PC-fatigued faculty and students muster only polite indifference, and many persons otherwise sensitive to the problems of institutional racism may not think twice about sitting down to enjoy the sixth game of the World Series between the Braves and the Indians

These responses reveal how difficult it can be even to direct attention to this issue, let alone reevaluate its priority on the issues "list" However, one need only ask a president, alumni director, trustee, coach, or protester from an institution embroiled in conflict over a Native American-related nickname what it has meant to them and the institution for the importance of the issue to become more evident, on as well as off the campus The strong feelings that surface in the midst of these controversies—Native Americans' anger and embarrassment, boosters' deep affection for their teams and disaffection for "troublemaking" activists, indifference toward Native American history—otherwise remain unacknowledged elsewhere in U S society Thus, Native American-related nicknames and symbols are a challenge for all of higher education—not just because the nicknames themselves are offensive to Native Americans and their allies, but because the controversies surrounding them expose the lack of will that characterizes the ways in which numerous colleges and universities respond to complaints of institutional racism In spite of the temptation for many campus leaders to give thanks that Native Americans mascots and nicknames are a problem only at *other* institutions, the persistence of institutionalized "isms" across higher education shows that the bell tolls also for them

Notes

[1] Although Rodriguez (1998) attempts to document which two- and four-year institutions use Native American-related nicknames, his list is a bit out of date A more comprehensive and accurate list of college and university nicknames can be found at the web site *<http //www afn org/~recycler/sports html>*

[2] "Illinois" is the French variation of "Illiniwek" (pronounced ill-EYE-neh-wek), their name for themselves, which meant simply "men" or "people" The tribes are sometimes referred to by a shortened form, "Illini"

[3] Robert Chapel, UIUC University Archives technical assistant, confirmed that the origin of the athletic use of the nickname "Illini" is poorly documented This claim also appeared in Lessiter (1989)

[4] The discrepancies between the accounts are generally minor According to a letter written by the person who was the second "Chief Illiniwek," the game was played in

Pittsburgh, not Philadelphia (Borchers, 1959) Pearson, M (1995) says the game was played not in Pennsylvania but in Illinois at the U of I's brand-new Memorial Stadium

[5] The mascot's name, "Chief Illiniwek," was supposedly suggested by legendary Illinois football coach Robert Zuppke (Lessiter, 1989)

[6] The Miami called themselves "Twightwee," their name for the cry of the crane and the symbol of the Atchakangouen (the Miami proper tribe) "Miami" is a French and English variation of their Ojibwe name, "Oumami," which means "people of the peninsula "

[7] The Huron called themselves "Wyandot" or "Wendat," an Iriquoisan word meaning "island people" or "dwellers on a peninsula " They were called "Hurons" by French explorers, a pejorative name derived from the French word *hure*—meaning "wild boar"—which alluded to the Wyandots' bristly hair Today, members of this tribe living in Quebec still refer to themselves as "Hurons "

[8] Although culture is a concept with multifarious definitions, Kuh and Whitt (1988) provide a definition applicable to higher education organizations and settings that appears to justify applying the term "culture" to the shared practices and meanings of regional athletic boosters

[9] This connection between an institution's Native American-related nickname and a particular tribe is not always the case Most institutions using these kinds of nicknames are more generic (e g , the Marquette Warriors, the Bradley Braves, the Arkansas State University Indians)

[10] Other institutions that have recently dropped their nicknames or symbols include Bradley University (IL), Knox College (IL), Marquette University (WI), Ripon College (WI), Saint John's College (NY), and the University of Tennessee-Chattanooga

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Sexual Harassment in the 1990s

A University-wide Survey of Female Faculty, Administrators, Staff, and Students

Introduction

Much of the existing research examining sexual harassment was conducted when awareness of sexual harassment was low and policies were uncommon. Several factors in recent years may have affected the prevalence of sexual harassment on university campuses. Title VII of the Civil Rights Act protected employees (including student employees) at academic institutions from sexual harassment, however, sex discrimination against students was not prohibited. In the late 1960s and early 1970s, the struggle against sex bias and discrimination in schools and universities intensified (see Shoop, 1997). This led to the passage of Title IX of the Education Amendments of 1972, which applied Title VII standards to Title IX. Specifically, Title IX of the Education Amendments of 1972 prohibited discrimination on the basis of sex in educational programs or activities that receive federal financial aid. Although Title IX law has evolved slowly and had little early enforcement, it is now the primary tool against sexual harassment (Shoop, 1997).

Beginning in 1976 with students from Yale University, students have sued their institutions for failing to stop discriminatory behavior including sexual harassment (see McKinney & Maroules, 1991, Sandler, 1997,

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Shoop, 1997, Watts, 1996) More recently, in *Franklin v Gwinnett County Public Schools,* the U S Supreme Court unanimously ruled that institutions could be sued for compensatory damages for intentional violation of Title IX As a result of litigation and changes in the law, as well as recent events such as the Clarence Thomas confirmation hearings, the Navy "Tailhook" scandal, accusations of sexual harassment toward female military recruits, and sexual harassment allegations against President Clinton, academic institutions increasingly have responded by developing policies concerning sexual harassment. The purpose of the present research was to examine the experiences of women in academia in a university that has a publicized policy and procedures regarding sexual harassment

Prevalence of Sexual Harassment in Academia

Most studies report that between 20% and 40% of undergraduate and graduate women experience some form of sexual harassment while a student (Benson & Thomson, 1982, Cammaert, 1985, Dziech & Weiner, 1984, Fitzgerald et al , 1988, Glaser & Thorpe, 1986, McKinney, Olson, & Satterfield, 1988, see Rubin & Borgers, 1990, Sandler, 1997) In her study of 356 graduate women at a major East Coast public university, Schneider (1987) reported that 60% of female graduate students surveyed reported having been sexually harassed by a male professor Although the figures reported by Schneider are higher than found in most studies, this is not the only research to report higher percentages (e g , Wilson & Krauss, 1983)

Studies of both male and female faculty members report that anywhere between 6% and 50% experience behaviors that they consider sexual harassment at some point in their careers (Carroll & Ellis, 1989, Fitzgerald et al , 1988, Grauerholz, 1989, 1996, Gruber, 1990, McKinney, 1990, Seals, 1997) Combining the prevalence of male and female faculty members may be misleading, however, because women experience more sexual harassment than men, and women are more likely to consider gender harassment and sexual attention as harassment than are men (Adams, Kottke, & Padgitt, 1983, Carroll & Ellis, 1989, Fitzgerald & Ormerod, 1991, Lott, Reilly, & Howard, 1982, Malovich & Stake, 1990, Padgitt & Padgitt, 1986, Valentine-French & Radtke, 1989) Seals (1997) suggests that approximately 40% of female faculty at colleges or universities report experiencing sexual harassment by other faculty members or staff at some point in their tenure, whereas Fitzgerald and Shullman (1993) estimate that as many as one-half of all female faculty experience sexual harassment during the course of their education or academic career.

Types of Sexual Harassment

Distinguishing among the types of sexual harassment is important for several reasons Even within a university community different subgroups of women (e g , undergraduates, graduate students, staff, faculty, and administrators) may experience the various types of harassment with dissimilar frequency Additionally, whether respondents label events as sexual harassment depends, among other things, on the type of behavior experienced

Perhaps the most widely researched categories of sexual harassment are those described by Till (1980) and Fitzgerald, Gelfand, and Drasgow (1993) Till (1980) argued that there were five categories of sexual harassment gender harassment, seductive behavior, sexual bribery, sexual coercion, and sexual assault Fitzgerald, Gelfand, and Drasgow (1993) reduced Till's five categories into three conceptually distinct and nonoverlapping dimensions sexual coercion, unwanted sexual attention, and gender harassment Sexual coercion is the extortion of sexual cooperation in return for job-related benefits (Gelfand, Fitzgerald, & Drasgow, 1995) Unwanted sexual attention is unwelcome and unreciprocated verbal and nonverbal behaviors that are considered offensive Gender harassment includes a broad range of verbal and nonverbal behaviors that convey insulting, hostile, and degrading attitudes about women (e g , slurs, taunts, gestures, the display or distribution of obscene or pornographic materials, gender-based harassment, and so forth)

Studies generally report that gender harassment is reported by a higher percentage of women than are other forms of sexual harassment (e g , Vaux, 1993) In their summary of the literature, Barak, Fisher, and Houston (1992) contend that gender harassment is experienced by an average of 60% of women in academia over a lifetime, whereas other types of harassment are experienced much less frequently For instance, Grauerholz (1989) reported that 32% of female faculty had experienced sexist comments by male students In contrast only 1% to 3% reported experiencing sexual bribery (Grauerholz, 1989, McKinney, 1990) Combining across all types of objectively defined harassment, Barak et al (1992) maintain that students have at least a 40% chance of encountering some form of sexual harassment at school

Perception of Sexual Harassment

Research examining what respondents consider to be sexual harassment has demonstrated that the greatest agreement is found for the explicit forms of harassment (e g , Baker, Terpstra, & Larntz, 1990, see Fitzgerald & Ormerod, 1991, Frazier, Cochran, & Olson, 1995, Hunter & McClelland, 1991, Rubin & Borgers, 1990) In their study examining faculty perceptions of hypothetical instances of sexual harassment, Fitzgerald and Ormerod found that both male and female faculty were more likely to label explicit verbal/physical behavior as harassment than less explicit forms of harassment In her study examining perceptions of actual experiences of sexual harassment, Grauerholz (1989) found that 44% of faculty women who had experienced sexist comments by students labeled this behavior as sexual harassment, whereas 96% believed that sexual bribery or sexual assault by a student constituted sexual harassment Similarly, in their study of college students, Adams, Kottke, and Padgitt (1983) found that 97% of the men and 99% of women said that sexual bribery constituted sexual harassment

The power of the perpetrator also influences whether behavior is perceived as sexual harassment. Victims of sexual harassment, as well as evaluations of hypothetical events (Pryor, 1985), indicate that behaviors are more likely to be judged as sexual harassment if the perpetrator has power over the victim

Responses to Harassment

Although women disapprove of harassing behaviors, few women attempt to resolve sexual harassment through formal means (see Gadlin, 1997, Gruber & Bjorn, 1982, Riger, 1991, see Rowe, 1997; Rubin & Borgers, 1990, U S Merit Systems Protection Board, 1981, 1988) Rowe and Lipsky (in press) argue that more than half of employees and managers who are involved in a problem or conflict prefer private informal options to deal with the issue and that only approximately one tenth prefer distributive options based on rights and power (e g , formal complaints) Moreover, Rowe and Bendersky contend that fewer than half of all managers and employees will come forward if the only options are formal "justice" based on a formal investigation (see Rowe & Lipsky, in press) Instead, many women who experience sexual harassment choose not to file formal complaints Common responses to sexual harassment include ignoring the behavior or telling a friend or family member (e g , Cammaert, 1985) Metha and Nigg (1983) found that only 20% of a university's female staff and female students who reported that they had been sexually harassed actually attempted to report it to a university official

Our purpose was to readdress many of the original research issues and some new questions in a university setting that has a published policy and explicit procedures regarding sexual harassment[1] Much of the existing literature is limited by its focus on students Thus, we surveyed all full-time female staff, faculty, administrators, and a representative sample of female undergraduate and graduate students An additional reason for examining the groups separately was that employees may differ from students in the frequency with which they experience sexual harassment and the types of harassment experienced We expected to find different patterns of sexual harassment That is, employees would be more likely to report other employees, whereas students would be more likely to report other students as perpetrators of sexual harassment We hypothesized that students who had been sexually harassed would be more likely to describe instances of sexual coercion and unwanted sexual attention than employees, whereas employees were expected to report experiencing more gender harassment than students All respondents were expected to be more likely to perceive sexual coercion and unwanted sexual attention than gender harassment as sexual harassment We believed that respondents would be more likely to employ assertive strategies (tell a supervisor, tell the person to stop, ask for mediation, write a letter, file a formal complaint, go to campus police or court) versus non-direct techniques (ignore the behavior, tell a friend, tell a co-worker) when the type of harassment was sexual coercion or the perpetrator was an employee versus a student

Method

Participants

The potential respondents for this study included all female employees employed at a southeastern university, and a representative sample of graduate and undergraduate students[2,3] Surveying resulted in a total sample of 765 (n = 446 employees, n = 319 students)

In December of 1995, a packet of materials containing (a) a cover letter explaining the study and requesting participation, (b) the questionnaire, and (c) a return envelope was sent to all full-time female employees at the university (n = 954) Employees were instructed to place the completed questionnaire in the envelope and return the envelope via interoffice mail Approximately two weeks after the initial questionnaire had been sent, a reminder letter was sent to all employees In February of 1996, the identical questionnaire was sent to all female faculty along with a letter asking them to discard the questionnaire if they had already participated Approximately two weeks later, a "second" reminder letter was sent. Thirty-six employees chose not to participate, data from 30 respondents was dropped due to missing information This resulted in an overall return of 54% for employees ($n = 512$) The return rate for usable surveys was 48% for faculty, 51% for administrators, and 45% for staff Of the completed employee surveys, 287 were staff at the university (37 5% of the total sample), 98 were faculty (12 8% of the total sample), and 61 were administrators (8 0% of the total sample)

In order to survey a representative sample of graduate students, a sampling scheme was developed using information from the registrar's office Specifically, in March of 1996, 30% of the university's female graduate students were mailed the survey along with a prestamped, return envelope ($n = 496$) Graduate students were selected in proportion to the number of graduate students enrolled in each college Eleven graduate students refused to participate Surveys were returned by 151 graduate students for a return rate of 30% (18 3% of the total sample) and represented all six colleges at the university (31 from health sciences, 27 from sciences, 26 from business, 21 from education, 15 from arts and letters, 10 from engineering, and 10 for whom information on program of study was missing) Overall, this sampling method provided a fairly geographic representation of the female graduate student population

Undergraduate students ($n = 179$) were selected from psychology courses during the Fall of 1996 and received extra credit that could be applied toward their course grade Undergraduate students represented 23 4% of the total sample ($n = 765$) Undergraduate students represented all six colleges at the university (69 from sciences, 25 from education, 22 from arts and letters, 22 from health sciences, 16 from business, 3 from engineering, and 22 from undeclared programs)

The age of the staff ranged from 20 to 62 with a mean of 37 8 years (*SD* = 9 8 years) Mean length of time at the university was 7.9 years Fifty-seven percent described their ethnicity as White, 39% described their ethnicity as African American, 2% described their ethnicity as Hispanic, and 3% described their ethnicity as other Fifty-three percent were married

The age of the faculty sample ranged from 25 to 63 with a mean of 41 6 years (*SD* = 8 7 years) Mean length of employment at the university was 7 8 years Of these, 89% described their ethnicity as White, 4% described their ethnicity as African American, 1% as Hispanic, and 5% described their ethnicity as other Sixty-seven percent were married.

The mean age of administrators was 42 5 (*SD* = 9 4 years, Range = 25 to 66 years) Mean length of time at the university was 9.2 years Eighty-three percent of administrators identified their ethnicity as White, 13%

as African-American, 2% as Hispanic, and 2% as Asian. Sixty-two percent of administrators were married at the time of the survey.

The mean age of the undergraduate sample was 21.4 years (*SD* = 4.9 years), with a range from 17 to 53 years. Students had been at the university for an average of 1 year and 3 months. Sixty-one percent were White, 28% were African American, 3% were Hispanic, 6% were Asian, and 2% were other. Nine percent of the undergraduate students were married.

The age of the graduate student sample ranged from 21 to 55 years (*M* = 30.8 years, *SD* = 7.4 years). Mean length of time at the university was 2 years and 7 months. Seventy-nine percent were White, 10% were African-American, 6% were Asian, 3% were Hispanic, 1% were Native American, and 0.7% were other. Forty-three percent of the graduate students were married.

Measures

The frequency and nature of sexual harassment while a student or employee at the university was assessed through an eight-page, self-report survey designed to assess the various aspects of interest. The survey was a combination open-ended and yes/no questions.

Prior to asking respondents to describe in an open-ended fashion any behaviors that they may have found offensive while an employee or student at the university, respondents' completed one of two (employee or student) forms of the 20-item Sexual Experiences Questionnaire (SEQ-R, Fitzgerald et al., 1993). Data from the SEQ-R were administered as a stimulus or prime so that respondents would begin thinking about offensive behaviors that they might have experienced while at the university.

Next, in three open-ended questions respondents were asked to think back to the kinds of behaviors described by the SEQ-R and to describe *any* offensive experiences while a student or employee at the university (e.g., my boss made sexist remarks during a meeting). Respondents were asked in a checklist format about the gender and position (i.e., undergraduate student, graduate student/teaching assistant, staff member, faculty member, administrator, other) of the perpetrator(s) who performed each of the offensive behaviors. In a similar checklist format, respondents were asked how they responded to each of the offensive behaviors (i.e., ignored it, told a co-worker/another student, told a supervisor, told a friend/family member, told the person to stop, filed a formal complaint at the university, other). Finally, after *each* instance described, respondents were asked in a "yes" or "no" format if they considered the behavior(s) to be sexual harassment.

In the next section of the questionnaire, respondents were asked, "Have you been sexually harassed while a student/employee at the university?” and “How many different times have you been sexually harassed while at ‘*name of the university*’?” Women who reported that they had experienced sexual harassment while a student/employee at the university were asked whether they had filed a complaint with the university Finally, participants were asked a series of demographic questions

Forty-two percent of the respondents (324 of 765) described *at least one incident of offensive behavior* while a student or employee of the university (a total of 415 incidents were described by the 324 respondents) Results of an Analysis of Variance and follow-up Neuman-Keuls post hoc analysis, indicated that staff members ($M = 0\ 77$, $SD = 0\ 99$) described significantly more incidents of offensive behaviors than did undergraduate (0 53, $SD = 0\ 80$) or graduate women ($M = 0\ 51$, $SD = 0\ 79$), $F(4,411) = 3\ 1$, $p < 0\ 05$ Of the 415 offensive behaviors described, 249 were rated by the respondents as sexual harassment (i e , 60% were rated by respondents as sexual harassment)

Coding Open-ended descriptions were coded into one of three types of harassment described by Fitzgerald and colleagues (i e , gender harassment, unwanted sexual attention, or sexual coercion) [4] Coding was performed by a female psychology student blind to the hypotheses of the study Twenty-five percent of the descriptions were coded by a second psychology student also blind to the hypotheses of the study Percent agreement ranged from 0 67 for sexual coercion to 0 94 for gender harassment, with a mean of 84% [5]

Results

Thirty percent of the staff ($n = 70$), 22% of faculty ($n = 19$), 43% of administrators ($n = 23$), 20% of undergraduate students ($n = 36$), and 19% of graduate students ($n = 27$) reported having been sexually harassed while an employee (or student) at the university

As shown in Table 1, a different pattern emerged for undergraduate and graduate women Specifically, undergraduate women often reported other students (both undergraduate and graduate) as perpetrators of sexual harassment, whereas graduate women most often reported male faculty as perpetrators Ninety-one percent of the time the reported offenders were male, whereas 9% of the time respondents reported a female perpetrator

Because research has demonstrated that length of employment with an organization is associated with experiences of sexual harassment (e g , LaFontaine & Tredeau, 1986), we examined whether position of the respondent was related to the number of times the individual reported that she had experienced sexual harassment Length of time at the university served as a covariate The covariate was significant,

TABLE 1

Position of Perpetrator by Position of Victim

Position of Perpetrator	Staff	Faculty	Administrator	Undergraduate	Graduate
Male					
Staff	77	1	4	5	3
Faculty	46	32	13	0	33
Administrator	43	4	19	0	0
Undergraduate	10	0	9	11	2
Graduate	0	1	0	13	4
Other	10	0	9	11	2
Female					
Staff	11	0	0	0	0
Faculty	5	1	0	0	0
Administrator	7	0	7	0	0
Undergraduate	0	1	0	5	0
Graduate	0	0	0	0	0
Other	0	0	0	0	0

$F(1, 680) = 15\ 17, p < 0\ 001$, that is, as the length of time at the university increased, the number of times the individual reported having experienced sexual harassment increased When the covariate was removed (i e , length of time at the university was controlled), no significant differences were found between the position of the respondent and the number of times the respondents reported that they had been sexually harassed

Results of a chi-square analysis demonstrated that the type of sexual harassment experienced differed as a function of whether the respondent was an employee or student, $X^2\,(2{,}245) = 149\ 00, p < 0\ 001$ Of the 249 incidents respondents described as sexual harassment, 245 were able to be coded as either gender harassment, unwanted sexual attention, or sexual coercion Specifically, employees reported 98 incidents of gender harassment, 48 incidents of unwanted sexual attention, and 12 instances of sexual coercion Students reported 37 incidents of gender harassment, 36 instances of unwanted sexual attention, and 14 instances of sexual coercion Employees were more likely to report gender harassment than students (62% of the incidents reported by employees were gender harassment, whereas 43% of the incidents reported by students were gender harassment, respectively) Students were more likely to experience unwanted sexual attention (41% of those who reported having been sexually harassed versus 30% for employees, respectively) and sexual coercion than employees (16% for students versus 8% for employees) See Table 2

TABLE 2
Position of Respondent and Type of Sexual Harassment Experienced

Type of Sexual Harassment	Employee	Student
Gender harassment	62%	43%
Unwanted sexual attention	30%	41%
Sexual coercion	8%	16%

A chi-square analysis revealed that there was a significant difference between the type of sexual harassment experienced and whether respondents perceived the behavior as sexual harassment, X^2 (2,411) = 18 01, p < 0 001 A Marascuillo (1966) multiple comparison technique revealed that respondents were more likely to label sexual coercion (96%) and unwanted sexual attention (70%) as sexual harassment than gender harassment (52%)

A breakdown of women's responses to self-reported instances of sexual harassment indicated that regardless of the type of sexual harassment, respondents chose non-assertive strategies (i e , ignoring the behavior, telling a friend, telling a co-worker) over more direct strategies (e g , tell the person to stop, tell a supervisor) or filing a formal complaint (64% of responses were non-direct versus 36% direct, respectively) Table 3 presents the response to sexual harassment by position of the perpetrator (student or employee)

Additionally, women appeared more likely to file a formal complaint if the perpetrator was an employee Specifically, 18 women reported having filed a formal complaint of sexual harassment (12 complaints were against faculty, administrators or staff, 2 against undergraduates, and 4 against individuals not associated with the university (e g , venders and so forth)

Discussion

The percentage of women who reported that they had been sexually harassed while a student or employee at the university surveyed ranged from 19% for graduate students to 43% for administrators The fact that female administrators were more likely than other women to report experiencing harassment may reflect their greater knowledge of what constitutes sexual harassment (i.e , administrators are expected to be familiar with and enforce the university's policy/procedures on sexual harassment)

Although female administrators were the most likely group to have reported actually experiencing sexual harassment, staff members were

TABLE 3

Response to Sexual Harassment by Position of the Perpetrator (Employee or Student)

Response	Employee	Student
Ignored it	15%	31%
Told a friend	20%	22%
Told a coworker	18%	8%
Told person to stop	17%	21%
Told a supervisor	14%	7%
File a complaint	4%	1%
Other	12%	10%

the most likely group of women to report having experienced offensive sexual behaviors and reported the second highest percentage of sexual harassment Considerable research has demonstrated that "blue-collar" women who are dependent on their jobs may be very vulnerable to sexual harassment (Gruber, Smith, & Kauppinen-Toropainen, 1996, Lach & Gwartney-Gibbs, 1993) Moreover, many blue-collar working environments (such as those experienced by many of the staff women in the present survey—mail rooms, grounds crews, physical plant, janitors, and so forth) are presumed to be "rougher" than white-collar environments (see Gruber et al , 1996) These results suggest that women working in blue-collar jobs even within a university setting experience more offensive sexual behaviors than other women (i e , students), and that many of these behaviors are perceived as sexual harassment Another reason that female staff and administrators appear more likely to have experienced sexual harassment than female students is that they had greater length of time at the university Length of time at the university was related to the incidence of sexual harassment

Although students were less likely to report experiencing sexual harassment than employees, one in five undergraduate and graduate women had experienced sexual harassment while at the university The percentage of female students reporting sexual harassment is relatively high for several reasons First, the university has had a publicized policy with specific procedures for dealing with sexual harassment in place for six years prior to the survey Second, students had been at the university only an average of one year for undergraduate women and two and one-half years on average for graduate women Moreover, this was a relatively young undergraduate population that may not be representative of the entire undergraduate population As undergraduates progress, opportunities to get to know faculty and work closely with faculty may increase Finally, students (particularly undergraduate women) may be less experienced than women surveyed in a work environment and less likely to view inappropriate behaviors as sexual harassment (Murrell & Dietz-Uhler, 1993)

Twenty-two percent of female faculty surveyed in the present study reported experiencing sexual harassment This is slightly less than has been reported in some studies (see Barak et al , 1992, for a review) One explanation for the slightly lower incidence of sexual harassment experienced by faculty in the present study is that few female faculty reported contrapower harassment (i e , students harassing faculty) In contrast to the present study, previous research examining contrapower harassment has specifically asked respondents about behaviors of a sexual nature that they have experienced from students (Grauerholz, 1989, 1996, McKinney, 1990) Although the majority of faculty women surveyed by Grauerholz (1996) reported behaviors such as sexist comments and undue sexual harassment by students as sexual harassment, as can be seen in Table 2, in the present study only one faculty woman reported an instance of contrapower harassment Many faculty women may perceive sexual behavior by students as harassing, but not sexual harassment Additionally, although female professors have more position power than male students, they lack power in terms of their status as female (Benson, 1984) Moreover, some students may not perceive a woman faculty member's achieved status as legitimate or important Additional research is needed to determine whether and under what circumstances administrator and faculty women perceive contrapower harassment as sexual harassment, especially because women may experience more contrapower harassment than men and more adverse effects of sexual harassment than men (see McKinney, 1992) As described below, many female faculty reported experiencing sexist work environments, however, these experiences were not always considered sexual harassment

A different pattern of sexual harassment emerged for undergraduate and graduate women Although these findings must be interpreted with caution because we do not know whether all instances of harassment have been reported and we only present descriptive information, it appears that sexual harassment tends to happen between those who work more closely together More specifically, as can be seen in Table 1, with few exceptions, female faculty and female graduate students who had experienced sexual harassment reported male faculty as perpetrators Undergraduates generally reported other students (both undergraduate and graduate students) as perpetrators, staff most often reported their peers, administrators, and faculty as sexual harassers, and administrators most often reported other administrators or faculty as perpetrators Interestingly, undergraduates did not report faculty or administrators as perpetrators of sexual harassment As noted above, as undergraduates progress, opportunities to get to know faculty and work closely with faculty may increase. Relatedly, because they are older, more experienced than undergraduates, and work more closely with faculty, female graduate students may be especially vulnerable to sexual harassment by male faculty These results also suggest, however, that women in other positions (i e , staff, faculty, and administrators) may be vulnerable to sexual harassment by male faculty as well The present study indicates several patterns of victim-perpetrator harassment in academia that are important to examine in future research

As expected, employees who reported sexual harassment were most likely to report having experienced gender harassment, whereas students were equally likely to report having experienced gender harassment and unwanted sexual attention Additionally, students were twice as likely to experience sexual coercion as employees (16% of the total proportion of harassment experienced by students versus 8% of the total proportion of harassment reported by employees, respectively) One explanation for these findings is that different subgroups of women in academia may be more vulnerable to different forms of harassment. Another possibility is that in contrast to students, older women, and in the case of administrators and faculty, more educated women, are more likely to recognize all forms of sexual harassment including more subtle forms of harassment, such as gender harassment Nevertheless, policymakers, individuals who conduct sexual harassment training, and those who enforce university penalties on sexual harassment, should be aware that subgroups of women in academia may be more susceptible to various forms of harassment and that women in different positions may have different levels of understanding of what constitutes sexual harassment

Similar to previous research (Fitzgerald & Ormerod, 1991, Stockdale & Vaux, 1993), respondents were much more likely to label sexual coercion and unwanted sexual attention than gender harassment as sexual harassment. Gender harassment often took the form of derogatory, negative comments, lewd comments/jokes, or being slighted or ignored because of one's gender (e g , "I was treated rudely and patronizingly because I am a woman," "general comments about where a woman's place is," "a respectable woman wouldn't work and go to school," "slighted-ignored because I had done a lot to make a positive change, he used his position to belittle me", "this person and two others in the department have had problems treating me as an equal and have implicitly denigrated my contribution") In contrast, unwanted sexual attention often took the form of perpetrators being stared at, being touched, being brushed up against, cornered, or pinned, being asked out repeatedly, or being kissed unexpectedly (e g., "instead of looking me directly in the eye, when we talked he would look at my breasts or just "scope" up and down my body," "made comments about my legs," "he put his hand on my arm or hand and then rubbed it," "unwanted sexual advances even after being told to leave me alone," "on several occasions I was approached and kissed on the neck," "as a reward for a good job or because he having a good day, he would give you a sloppy, wet kiss"). Interestingly, several respondents indicated that perpetrators would "use" special events such as parties to excuse their behavior (e g , "Christmas was the excuse to give me unwanted kisses and close encounters—these were well-known senior faculty who bestowed their friendliness on many women ") Finally, sexual coercion often took the form of classic examples of "quid pro quo" (e g , "a professor commented that if I wanted to make better grades I could do so by doing certain "favors" for him," "wanted sex even though I refused, kept requesting, and subtly inferred there would be negative repercussions for not consenting")

It appears that what constitutes sexual harassment has changed little in recent years One possible explanation is that while many policies with explicit procedures for dealing with sexual harassment are in place, training lags behind the development of university-based policies Additionally, many policies fail to provide specific examples of the types of behaviors that comprise sexual harassment Moreover, the majority of harassment reported in the present study was male perpetrator/female victim These findings suggest that many women continue to tolerate a certain amount of inappropriate sexual behavior from their students, peers, and supervisors

Although it was hypothesized that respondents would be more likely to take formal action against perpetrators when the type of harassment was sexual coercion, this hypothesis was not supported Similar to previous research (Cammaert, 1985; Rubin & Borgers, 1990) the most common responses to sexual harassment were ignoring the behavior or telling a friend or family member Only 8% of the respondents who had experienced one or more instances of sexual harassment filed a formal complaint with the university This percentage is actually lower than reported by Metha and Nigg (1983) who found that 20% of a university's female staff and female students who reported that they had been sexually harassed actually attempted to report their experience to a university official

Despite changes in public awareness, an expressed stance on sexual harassment by many universities, and a specific policy/procedure at the university surveyed, women continue to prefer non-formal and non-assertive responses to sexual harassment It is important to acknowledge that although the university surveyed has had a publicized policy/procedure on sexual harassment, the published policy does *not* include less formal options for handling complaints Additionally, researchers have acknowledged the problems associated with filing formal complaints and that individuals with numerous options (e g , informal third-party resolution, formal or informal mediation, and so forth) are more likely to report sexual harassment (see Gadlin, 1997, Rowe, 1990, 1993, 1996, Rowe & Lipsky, in press) In fact, Rowe and Lipsky (in press) contend that fewer than half of all managers and employees will come forward if their only options involve formal investigations Moreover, some researchers have argued that individuals value relationships more than confrontations, which may have resulted in few formal complaints in the present study (see Riger, 1991, Rowe & Lipsky, in press)

Respondents were asked to describe incidents that occurred at any point during their time at the university It is important to realize that the university adopted a policy on sexual harassment in 1990 Although this is unlikely to be a problem for the student populations, because they have been at the university for a short period of time, some employees may have described experiences that occurred prior to the adoption of a formal policy Clearly, there was no formal mechanism for dealing with complaints prior to that time

Another limitation of the present study is that respondents who reported that they had been sexually harassed but did not file a formal complaint were not asked why they did not take formal action Previous research has documented many reasons why women fail to take formal action against a perpetrator Some women feel embarrassed by (Culbertson, Rosenfeld, Booth-Kewley, & Magnusson, 1992) or blame themselves for (Jensen & Gutek, 1982) harassment Others lack assertiveness because of they were "taught to be polite" (see Gutek, 1993), because of the ambiguity of the sexual interaction (Gruber & Bjorn, 1982), or because they believe the accusation will unduly harm the harasser (Gutek, 1985) Riger (1991) believes that many women do not file formal complaints because the nature of dispute resolution procedures better fit males Additionally, many women do not believe that the benefits of any formal action outweigh the possible consequences (U S Merit Protection Board, 1988) Moreover, many women fear the possibility of retribution, which is a possibility (i e , reports by two state agencies have demonstrated that between one quarter and two fifths of complainants have been forced out of their jobs (Coles, 1986, Crull, 1982) or they fear problems with references (Koss et al , 1994) Additionally, few lawsuits result in settlements favorable to the complainant and usually only when there are witnesses and supporting documents (see Gutek, 1993; Terpstra & Baker, 1988, 1992) Although women were not asked why they did not file a complaint, several women did volunteer on the survey form that formal complaints or complaints to supervisors had "backfired" Nevertheless, more systematic research is needed that examines why women who acknowledge experiencing sexual harassment fail to take formal action against perpetrators and that examines the outcomes of filing a formal complaint for women who chose to take formal action against perpetrators

Women who had experienced sexual harassment were more likely to file a formal complaint, however, when the perpetrator was an employee versus a student Perhaps because employees are generally older and are likely to have power over others, they are expected to "know better" In contrast, even the most egregious behavior appears more likely to be tolerated if committed by a student In the words of one staff member, "Even though I am married and he would not leave me alone, well, he was an undergraduate and he didn't really know better" Though students may have little formal power over employees, they may have authority over other students (in the case of graduate student teaching assistants who harass undergraduates) Non-assertive techniques fail to teach students that their behavior is unacceptable

Limitations of the present research include the focus on one university, differential sampling methods, and return rates Although a formal policy on sexual harassment was in place at the university when the survey was conducted, no pre-policy data were available Thus, the data do not directly address the impact of the harassment policy on women's experiences of sexual harassment Nevertheless, these findings confirm several earlier studies, as well as indicate several directions for future research First, the prevalence of sexual harassment (at least among students) appears fairly stable during the past two decades Although the university that was surveyed has a policy on sexual harassment, little formal training on sexual harassment is available for students or employees Thus, it appears that simply having a policy/procedure on sexual harassment is not enough to deter sexual harassers or to entice victims to come forward In contrast, training programs send the message to employees and students that the university is serious about preventing sexual harassment (Magley, Zickar, Salisbury, Drasgow, & Fitzgerald, 1997) Moreover, results from a study of non-university women demonstrated that trained women were more likely to utilize formal complaint processes (see Magley et al , 1997) Although publicized policies provide a first-step toward reducing a very serious problem, clearly, a second-wave of effort is needed to prevent and address sexual harassment in academia

More globally, future research should examine sexual harassment from a broader perspective As our society, academia, and our workplaces become increasingly diverse, there is a growing need to understand other variations of sexual harassment, such as intra-race, intragender, inter-gender, intra-nationality, as well as sexual harassment experienced by males In the present study, for instance, 9% of the women surveyed reported that the offenders were female This is considerable, given that only female respondents were surveyed Additionally, future research should examine whether culture-specific beliefs and values influence interpretations of sexual harassment and whether sexual harassment is experienced differently by non U S women and women of color Also, because women from many cultures have lower status then men, cross-cultural research is especially important Additionally, maintaining the codes of behavior of one's host country may present problems for foreign-born men who may have difficulty adjusting to more equitable gender roles found in the American workplace

Notes

[1] The publicized policy included the following procedures (1) faculty and administrators had the option of filing a complaint with the EO/AA committee, (2) employees had the option of filing a complaint with the EO/AA committee or filing a complaint with personnel services, and (3) students had the option of filing a complaint with the EO/AA office or student services No informal procedures for dealing with sexual harassment are outlined in the publicized policy

[2] The university that participated is a medium-sized, public university located in an urban area The university serves approximately 16,000 undergraduate and 3,000 graduate students

[3] Adjunct faculty were not included in the sample for several reasons Adjunct faculty typically teach one evening per week or on the weekends, often at small branch campuses, and are rarely in contact with other full- and part-time employees Thus, their experiences may not be typical of full-time employees Additionally, a current list of adjunct faculty was not available at the time of the survey Moreover, many adjunct faculty either did not have mailboxes at the university or were unable to check their inter-campus mail on a regular basis

[4] Only 4 of the 249 incidents of sexual harassment reported by respondents could not be coded into one of the categories of sexual harassment Agreement was 100% for instances not coded as harassment

[5] The lower percentage of agreement between the two coders for the category of sexual coercion is due to the fact that there were fewer instances of these behaviors As a result, disagreements resulted in a lower overall percentage of agreement than for the other two types of sexual harassment (gender harassment and unwanted sexual attention)

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The Influence of Active Learning on the College Student Departure Process

Toward a Revision of Tinto's Theory

The Student Departure Problem

Almost one-half of students entering two-year colleges and more than one-fourth (28 5%) of students entering four-year collegiate institutions leave at the end of their first year (Tinto, 1993) Such departure rates are vexing to both scholars and practitioners. Scholars seek explanations, whereas college and university administrators desire to manage their student enrollments by reducing such rates of departure

Although various theoretical perspectives—economic, organizational, psychological, societal—have been advanced to account for the phenomena of college student departure (Tinto, 1986, 1993), Tinto's interactionalist theory of college student departure enjoys near-paradigmatic status, as indicated by more than 400 citations and 170 dissertations pertaining to this theory (Braxton, Sullivan, & Johnson, 1997) Recently, Braxton, Sullivan, and Johnson (1997) empirically and conceptually assessed Tinto's theory Their assessment focused on the degree of support for the 13 primary propositions postulated in Tinto's 1975 foundational theory Empirical tests robustly support only 5 of the 13 primary propositions However, 4 of these propositions are logically interrelated Put in narrative form, these 4 propositions read student

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entry characteristics affect the level of initial commitment to the institution. These student entry characteristics include family background characteristics (e.g., socioeconomic status, parental educational level), individual attributes (e.g., academic ability, race, and gender) and precollege schooling experiences (e.g., high-school academic achievement). The initial level of commitment to the institution influences the subsequent level of commitment to the institution. This subsequent level of institutional commitment is also positively affected by the extent of a student's integration into the social communities of the college. The greater the level of subsequent commitment to the institution, the greater the likelihood of student persistence in college.

However, these empirically backed propositions leave social integration unexplained. Theory elaboration affords one approach to the development of explanations for social integration and the revision of Tinto's theory. Theory elaboration entails the application of new concepts borrowed from other theoretical perspectives to explain the focal phenomena (Braxton, Sullivan, & Johnson, 1997). Institutional type (Chapman & Pascarella, 1983), organizational attributes (Berger & Braxton, 1998, Braxton & Brier, 1989), motivations for attending college (Stage, 1989), financial aid (Cabrera, Nora, & Castaneda, 1992), fulfillment of expectations for college (Braxton, Vesper, & Hossler, 1995), sense of community in residence halls (Berger, 1997), student involvement (Milem & Berger, 1997), life task predominance (Brower, 1992), and self-efficacy (Peterson, 1993) are among the concepts derived from other theoretical perspectives given empirical treatment to understand both social integration and student departure decisions.

Various constructs may also be derived from a consideration of the role of the college classroom in the college student departure process in general and the identification of forces that influence social integration in particular. Tinto (1997) contends that if social integration is to occur, it must occur in the classroom (p. 599), because the classroom functions as a gateway for student involvement in the academic and social communities of a college (Tinto, Goodsell, & Russo, 1993). Thus, the college classroom constitutes one possible source of influence on social integration, subsequent institutional commitment, and college departure.

Recently, scholars have begun to recognize the role of the classroom in the college student departure process. Specifically, the direct influence of classroom-based academic experiences of students on their withdrawal decisions (Nora, Cabrera, Hagedorn, & Pascarella, 1996), the relationship between social integration (sense of belonging) and the discussion of course content with other students outside of class (Hurtado & Carter (1997), and the role of cooperative learning in the college student departure process (Tinto, 1997) have received empirical treatment Faculty use of active learning practices constitutes another possible source of influence on the college student departure process in general and social integration in particular Active learning is any class activity that "involves students in doing things and thinking about the things they are doing" (Bonwell, & Eison, 1991, p 2) Active learning activities include discussion, questions faculty ask students in class, cooperative learning, debates, role playing, and the questions faculty ask on course examinations

Active learning should not be confused with academic integration, a core construct of Tinto 1975 foundational theory of college student departure Active learning is conceptually distinct from academic integration, for active learning and other classroom-based experiences (Nora, Cabrera, Hagedorn, & Pascarella, 1996, Hurtado & Carter, 1997) are antecedents of academic integration (Braxton, in press) [1] Academic integration reflects a student's experience with the academic systems and academic communities of a college or university Such experiences find expression in a student's sense of normative congruence and affiliation with these academic systems and communities (Braxton, in press, Braxton & Lien, in press, Durkheim, 1951, Tinto, 1975) In contrast, antecedents of academic integration are academic activities or classroom-based experiences that shape a student's perception of their degree of academic integration (Braxton, in press) [2] Put differently, active learning and other classroom activities constitute sources of influence on academic integration Typical approaches to measuring academic integration further illustrate this distinction Academic integration typically has been operationally defined and measured as a student's estimation of their academic and intellectual development, grade point average and student's perception of faculty concern for teaching and student development (e g , Braxton & Brier, 1989, Cabrera, Castañeda, Nora, & Hengstler, 1992, Pascarella, Duby, & Iverson, 1983, Pascarella & Terenzini, 1980, Pascarella & Terenzini, 1983, Terenzini, Pascarella, Theophilides, & Lorang, 1985) Thus, typical measures of academic integration suggest that active learning and other classroom-based teaching practices are sources of influence (antecedents) on academic integration and should not be viewed as interchangeable with academic integration

Active Learning and Student Departure

Active learning enhances student knowledge and understanding of course content (Anderson & Adams, 1992, Chickering & Gamson, 1987, Johnson, Johnson, & Smith, 1991, McKeachie, Pintrich, Yi- Guang, &

Smith, 1986) Thus, students who frequently encounter active learning in their courses perceive themselves gaining knowledge and understanding from their course work As a consequence, such students may be more likely to view their collegiate experience as personally rewarding Because their classes are judged to be rewarding, students may invest the psychological energy needed to establish memberships in the social communities of their college or university (Milem & Berger, 1997)[3]

Students who frequently experience active learning in their classes may also have more time available for participation in collegiate social communities because they feel that they are able to spend less time on course preparation and studying for examinations In comparison, students who infrequently experience active learning in their courses may become socially isolated in order to improve their academic performance in their courses Active learning course activities may also help students develop friendships and networks of peer support that assist them in the establishment of membership in the social communities of their college or university Thus, active learning course practices may directly influence social integration and indirectly affect subsequent institutional commitment and student departure decisions

Tinto (1997) focused on the role of cooperative learning in the college student departure process Cooperative learning constitutes a special case of active learning, for it involves the use of small groups of students who work together with the goal of maximizing both their own learning and that of members of their group (Johnson, Johnson, & Smith, 1991) Although cooperative learning has received empirical treatment, little or no research has centered on the role of the more general process of active learning on social integration, subsequent institutional commitment, and student departure decisions Thus, the purpose of this inquiry is to estimate the influence of such forms of active learning as class discussions, knowledge level examination questions, group work, and higher order thinking activities on social integration, subsequent institutional commitment, and student departure decisions

Methods

This study used a longitudinal design composed of 718 first-time, full-time first-year students at a highly selective, private research I university Three different surveys were administered to these students one during orientation, one during the fall semester, and the third during the spring semester The Student Information Form (SIF) administered by the Cooperative Institutional Research Program of UCLA/ACE was the survey given to students at the end of the orientation for first-year students Of these 1,547 first-year students, 1,343 gave permission for the institution to use their survey responses for research purposes (86 2%). The Early Collegiate Experience Survey (ECES) was administered to students in each residential living unit during the fall semester (late October 1995) A total of 1,237 usable surveys were returned for a response rate of 79 9% The third survey, the Freshman Year Survey (FYS) was administered to students in their living units during March 1996 A total of 1,061 surveys were returned, a response rate of 68 5% Data from all three collection points were matched and merged into one data set along with other institutional data

The resulting sample was a longitudinally constructed panel consisting of 718 individuals (46 4% of the entering class), who provided data at each of the three time points The sample is generally representative of the population from which it was drawn More specifically, 51% of the sample is comprised of females, whereas females make-up 52% of the population of first- year students In addition, 80% of the students in the population of first-year students are white, whereas 84% of the students in the sample are white

From these surveys, six sets of variables were developed (1) student background characteristics—race, gender, parental income, parental educational level, high-school grade point average, and SAT composite score, (2) initial institutional commitments, (3) active learning classroom behaviors, (4) social integration, (5) subsequent institutional commitment, and (6) departure decisions The six student background characteristics correspond to those characteristics delineated by Tinto (1975) Specifically, race, gender, and SAT-Composite score are individual attributes, whereas parental income and parental educational level are family background characteristics High-school grade point average is an indicator of precollege schooling experiences The SIF was used to measure the six student background characteristics and initial institutional commitment Active learning behaviors were assessed using survey items derived from the ECES and the FYS, whereas social integration, subsequent institutional commitment, and departure decisions were measured using the FYS given during the spring semester

With the exception of faculty active learning behaviors, these sets of variables correspond to the strongly supported propositions of Tinto's Theory discerned by Braxton, Sullivan and Johnson (1997) The operational definitions for the specific variables included in each variable set are exhibited in Table 1

Because active learning has been the object of little or no instrument development, four composite measures were developed for this inquiry As a consequence, these composite measures are best regarded as ex-

TABLE 1

Listing and Definition of Variables

Exogenous Variables	
1 Parental income	Estimated parental income (less than $6,000 = 1, $200,000 or more = 14) SIF item
2 High-school GPA	self-reported high-school grade point average(D = 1, A or A+ = 8) SIF item
3 Gender	Student gender (male = 1, female = 2) SIF item
4 Race	Student racial/ethnic identity (nonwhite = 2,white = 1) SIF item
5 Parental educational level	Level of parental educational attainment Composite of two SIF items one asking for father's level and the other assessing the mother's level of educational attainment (grammar school or less for both parents = 2, graduate work for both parents = 16)
6 Composite SAT score	Composite of SAT verbal and math scores or converted ACT score SIF item
7 Initial institutional commitment (IC1)	Students' choice of institution (3rd = 1, 1st = 4) SIF item
Endogenous Variables	
8 Class discussion	Composite of three ECES items measuring how frequently students observe the following activities in their fall semester classes (1 = never, 4 = very often) (1) Instructors make class discussions intellectually stimulating, (2) Instructors answer students' questions in a way that helps students understand the material, and (3) Instructors encourage students to participate in class discussions Alpha estimate for this composite measure is 0 71
9 Higher order thinking activities	Composite of six FYS items measuring how frequently students observe or engage in the following activities in their classes (1 = never, 4 = very often) (1) Instructors engage me in classroom discussion or debate of course ideas and concepts, (2) Instructors' questions in class ask me to point out any fallacies in basic ideas, principles, or points of view presented in the course, (3) Instructors' questions in class ask me to argue for or against a particular point of view, (4) Exams require me to argue for or against a particular point of view and to defend my argument, (5) Course papers or research projects require me to argue for or against a particular point of view and to defend my argument, and (6) Course papers require me to propose a plan for a research project or experiment Alpha estimate for this composite measure is 0 84
10 Exams limited to knowledge of facts	A single item indicator asking students how frequently (1 = never, 4 = very often) students observe that exam questions are limited to knowledge of facts FYS item
11 Group work	A composite of two ECES items measuring how frequently (1 = never, 4 = very often) students do the following in their classes (1) Instructors require students to work in groups, and (2) Instructors require students to work in cooperative groups to do course assignments Alpha estimate for this composite measure is 0 68
12 Social integration (SI)	A composite of two subscales peer group relations and out-of-class interactions with faculty members For both subscales, respondents indicated how much they agree with each item of the subscale (strongly disagree = 1, strongly agree = 4) The following 5 FYS items comprise the peer group relations subscales (1) Interpersonal relationship with students yields positive intellectual growth, (2) Has developed close personal

TABLE 1 (*Continued*)

	relationships with a student, (3) Interpersonal relationship with students yields positive personal growth, (4) Difficult to make friends (reverse scored), (5) Few students would listen and help if I have problem (reverse scored) The Cronbach alpha estimate for this subscale is 0 76
	The following 5 FYS items comprise the out-of-class informal interactions with faculty subscale (1) Satisfied with opportunity to meet and interact with faculty, (2) has developed a close relationship with at least one faculty member, (3) Non-classroom interactions with faculty have had a positive influence on my intellectual growth and my interest in ideas, (4) non-classroom interactions with faculty have had a positive influence on my personal growth, values, and attitudes, and (5) non-classroom interactions with faculty have had a positive influence on my career goals and aspirations The Cronbach alpha estimate for this subscale is 0 82 For the composite measure, the Cronbach alpha estimate is 0 75
13 Subsequent institutional commitment (IC2)	A composite of three FYS items indicating how much the respondents agree (strongly disagree = 1, strongly agree = 4) with the following statements (1) It is not important to graduate from this university (reverse scored), (2) I am confident I made the right decision to attend this university, and (3) I am sure that this university is the right place for me Alpha estimate for this scale is 0 72
14 Departure decision,	A composite of three FYS items These items index the intent to re-enroll likelihood that the student will re-enroll at the focal university next fall (1) extremely unlikely = 1, extremely likely = 5, (2) certain *not* to re-enroll = 1, certain to re-enroll = 5, and (3) no chance = 1, 100% sure to re-enroll = 5 Alpha estimate for this scale is 0 89

ploratory in nature Nevertheless, these four composite measures represent faculty active learning behaviors As such, these composite measures do not assess the attitudes and values faculty hold regarding active learning. The four types of active learning classroom behaviors used were class discussions, knowledge level examination questions, group work, and higher order thinking activities These four forms of active learning correspond to Bonwell and Eison's (1991) definition of active learning: any class activity that "involves students in doing things and thinking about the things they are doing" *Class Discussions* pertain to the use of the discussion method by faculty Class discussions of course content require students to think about the course content Thus, class discussions fit the definition of active learning *Knowledge Level Exam Questions,* a negative indicator of active learning, concerns the extent to which faculty limit examination questions to a knowledge of facts concerning course content *Knowledge Level Exam Questions* constitutes a negative indicator of active learning given that preparation for examinations requiring a knowledge of facts tends to require a surface rather than a deep level approach to learning course content (Entwistle & Tait, 1995). *Group Work* relates to the extent to which students are required to work in groups both in class and on course assignments. Group work entails active learning because students are required to think about the content of their courses in order to complete the work of the group. *Higher order thinking activities* refers to how frequently faculty pose questions to students during class that require higher order thinking about the course material. This dimension of active learning builds on the research of Barnes (1983) and Smith (1983) on questioning in college classrooms. Higher order thinking activities are also consistent with the definition of active learning given that higher order thinking about course content requires students to employ a deep level approach to learning course content (Entwistle & Tait, 1995). As evidenced by the survey items making up each of these composite scales (see Table 1), we hold that these composite scales possess face validity.

The measures of social integration and subsequent institutional commitment used in this piece of research were obtained from Pascarella and Terenzini (1980). Social integration is composed of two subscales empirically identified by Pascarella and Terenzini: peer group interactions and out-of-class interactions with faculty.

In this study, departure decisions are operationalized as a students' intent to return. The use of intent to return is well supported by research that demonstrates a strong relationship between intentions and actual persistence (Bean, 1980, 1983, Pascarella, Duby, & Iverson, 1983, Voorhees, 1987, and Cabrera, Casteñeda, Nora, & Hengstler, 1992).

Statistical Design

Path analysis using ordinary least-squares multiple regression was used to test the formulations derived from the theoretical framework of this piece of research.[4] Exogenous variables include five student background characteristics, whereas initial institutional commitment, the four indicators of active learning, social integration, subsequent institutional commitment, and student departure decisions were designated as endogenous variables. To test the influence of active learning on social integration, subsequent institutional commitment, and withdrawal decisions, eight structural equations were estimated, using GEMINI (Wolfle & Ethington, 1985), a FORTRAN program based on the formulations of Sobel (1982). Direct and indirect effects of each of the constructs included in the model were estimated using GEMINI. The criterion used to identify statistically reliable direct and indirect effects was the 0.05 level of statistical significance.

Findings

Table 2 displays the means and standard deviations of the variables measured in this inquiry Zero-order correlations among the variables used in the path analysis are exhibited in Table 3[5] The eight structural equations estimated are shown in Table 4 Table 4 exhibits the direct effects of the various variables included in each structural equation, whereas Table 5 presents the indirect effects of variables on subsequent institutional commitment and departure decisions The findings derived from the path analyses are organized by direct and indirect effects

Direct Effects

Given that the influence of active learning on social integration, subsequent institutional commitment, and student departure decisions is of central interest in this piece of research, the direct effects of active learning on these constructs receive primary attention

Two of the four indicators of active learning wield statistically significant influences on social integration Class discussions (beta = 0 21, $p < 0.0001$) and higher order thinking activities (beta = 0 05, $p < 0\ 0001$) positively influence social integration However, group work and knowledge-level exam questions fail to exert a statistically reliable effect on social integration

TABLE 2

Means and Standard Deviations of Variables

Variables	Mean	Standard Deviation
Race/ethnicity	1 17	0 379
Gender	1 49	0 500
Parental income	10 91	2 780
Parental educational level	12 87	2 640
High-school GPA	7 12	0 988
Composite SAT score	1125 34	398 200
Initial institutional commitment	3 28	0 949
Knowledge-level exam questions	2 30	0 791
Class discussions	8 81	1 740
Group work	4 68	1 350
Higher order thinking activities	14 93	3 61
Social integration	25 39	4 280
Subsequent institutional commitment	13 21	2 980
Intent to re-enroll	12 85	2 930

TABLE 3

Zero-Order Correlations Among the Variables

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1 Race	1.00													
2 Gender	0.04	1.00												
3 Parental income	–0.20	0.00[a]	1.00											
4 Parental educational level	–0.08	–0.02	0.34	1.00										
5 High-school GPA	–0.06	0.13	–0.12	–0.08	1.00									
6 Composite SAT score	–0.06	–0.05	0.12	0.09	0.04	1.00								
7 IC1	-0.11	–0.11	–0.02	–0.09	0.06	–0.09	1.0							
8 Knowledge level	–0.02	–0.14	0.03	0.07	–0.09	–0.03	–0.01	1.00						
9 Discussions	–0.05	0.03	0.04	0.01	0.02	–0.01	0.02	–0.03	1.00					
10 Group work	–0.05	–0.03	–0.03	0.02	–0.08	–0.06	0.11	0.09	0.23	1.00				
11 Higher order	–0.06	–0.03	0.11	0.00[a]	–0.04	–0.07	0.03	0.13	0.19	0.14	1.00			
12 Social integration	–0.06	0.20	0.01	0.04	0.10	–0.06	0.05	–0.03	0.22	0.03	0.08	1.00		
13 IC2	–0.07	0.05	–0.05	–0.01	0.09	–0.07	0.15	–0.07	0.19	0.02	0.06	0.62	1.00	
14 Intent	0.02	0.09	–0.02	–0.00[a]	0.12	–0.00[a]	0.08	–0.16	0.17	0.01	0.01	0.46	0.59	1.00

[a] = r less than +/–0.00

TABLE 4

Structural Parameter Estimates of Endogenous Variables (Standardized Direct Effects)

Indepedent Variables	Dependent Variables							
	IC1	Knowledge	Discussions	Group Work	Higher Order	Social Integration	IC2	Intent
1 Race	−0 12***	−0 01	−0 04	−0 02	−0 02	−0 05***	−0 03***	0 07***
2 Gender	−0 08***	−0 13***	0 03*	−0 03***	−0 03***	0 18***	−0 10***	0 01
3 Parental income	0 00[a]	0 00[a]	0 04	0 13***	0 13***	−0 02	−0 05***	0 02
4 Parental educational level	−0 09***	0 06***	−0 03	−0 02	−0 02	0 05***	−0 00[a]	0 00[a]
5 High-school GPA	0 04***	−0 07***	0 02	−0 06***	−0 07***	0 07***	0 03***	0 05***
6 Composite SAT score	−0 09***	−0 04***	−0 02	−0 06***	−0 06***	−0 04***	−0 03***	0 04***
7 IC1		0 01	0 01	0 11***	0 11***	0 02	0 12***	0 01
8 Knowledge level						−0 00[a]	−0 06***	−0 11***
9 Discussions						0 21***	0 06***	0 05***
10 Group work						−0 02	−0 02	0 00[a]
11 Higher order						0 05***	0 01	−0 02
12 Social integration							0 61***	0 14***
13 IC2								0 49***
14 Intent								
R Squared	0 20**	0 03**	0 01	0 04**	0 02*	0 10***	0 42***	0 39***

[a]beta weight less than +/−0 00 *$p < 0\ 05$ **$p < 0\ 01$ ***$p < 0\ 0001$

TABLE 5

Standardized Indirect Effects on Social Integration, Subsequent Institutional Commitment and Intent to Re-Enroll

Independent Variables	Social Integration	Subsequent Institutional Commitment	Intent To Re-Enroll
1 Race	−0 15***	−0 43***	−0 37***
2 Gender	0 06***	0 81***	0 37***
3 Parental income	0 02***	−0 00[a]	−0 03***
4 Parent educational level education	−0 01	0 02***	0 01
5 High-school GPA	0 02	0 17***	0 19***
6 Composite SAT score	−0 00[a]	−0 00[a]	-0 00[a]
7 IC1	0 01	0 04	0 21***
8 Knowledge level		−0 03	−0 11***
9 Discussions		0 22***	0 19***
10 Group work		−0 03	−0 04***
11 Higher order		0 02***	0 02***
12 Social integration			0 21***

[a] beta less than +/−0 00

***p < 0 0001

Class discussions (beta = 0 06, p < 0 0001) also positively influence subsequent institutional commitment In contrast, knowledge-level exam questions (beta = −0 06, p < 0 0001), an indicator of passive rather than active learning, negatively affects subsequent institutional commitment Consistent with the assessment of Tinto's Theory made by Braxton, Sullivan and Johnson (1997), social integration (beta = 0 61, p < 0 0001) also exercises a statistically reliable positive direct influence on subsequent institutional commitment

Two of the four indices of active learning affect, in a statistically reliable way, student persistence Class discussions positively influence (beta = 0 05, p < 0 0001) persistence, whereas knowledge-level exam questions (beta = −0 11, p < 0 0001) negatively influence such student behavior In addition, both social integration (beta = 0 14, p < 0 0001) and subsequent institutional commitment (beta = 0 49, p < 0 0001) exert positive effects on student decisions to remain in their chosen collegiate institution

Indirect Effects

Class discussions exercise statistically reliable indirect effects on both subsequent institutional commitment (beta = 0 22, p < 0 0001) and a student's intent to return to the focal collegiate institution (beta = 0 19, $p < 0.0001$). Moreover, social integration (beta = 0 21, p < 0 0001) indirectly affects intent to return in a positive, statistically significant manner From Table 5 it can be observed that higher order thinking activities wields a statistically significant influence on both subsequent institutional commitment and intent to return Group work and knowledge-level exam questions exert statistically significant indirect effects However, the regression coefficient of these effects fall below the criterion of 0 05 suggested by Land (1969) as meaningful Thus, these indirect effects are regarded as chance occurrences

Limitations

Several limitations to this research moderate the conclusions and implications for practice derived from its findings First, intent to return constitutes a proxy measure for actual student persistence Consequently, the findings of this study pertain to a student's likelihood of departure rather than their actual departure Second, only the likelihood of persisting from the first year to the second year of college is addressed by this study Hence, departure in subsequent years is not assessed. Moreover, some withdrawals who might re-enroll at the focal university are also not included (Eckland, 1964) Third, this study was conducted at a single research-oriented, highly selective residential university Thus, the findings of this study may not be generalizable to other types of colleges and universities However, single institutional studies are more in keeping with the underlying assumptions of Tinto's theory as it seeks to explain the longitudinal process of student departure within a given college or university (1993, p 112) As such, Tinto asserts that his theory "is not a systems model of departure" (1993, p 112) Finally, our measures of active learning are best viewed as exploratory Hence more refined measures of active learning should be developed in future research

Conclusions and Recommendations for Research

The findings of this study offer some support for the role of active learning in influencing student persistence/departure decisions Put differently, faculty classroom behaviors play a role in the student departure process. Three of the four indices of active learning wield a statistically significant influence on one or more of the central constructs of this study's theoretical perspective social integration, subsequent institutional commitment, and students' intent to return Only active learning emphasizing group work fails to influence any of these constructs

The findings of this study also add to our knowledge and understanding of social integration Although social integration is unaccounted for by those propositions of Tinto's Theory that enjoy robust empirical support (Braxton, Sullivan & Johnson, 1997), institutional type (Chapman & Pascarella, 1983), organizational attributes (Berger & Braxton, 1998, Braxton & Brier, 1989), motivations for attending college (Stage, 1989), financial aid (Cabrera, Nora, & Castaneda, 1992), fulfillment of expectations for college (Braxton, Vesper, & Hossler, 1995), sense of community in residence halls (Berger, 1997), and student involvement (Milem & Berger, 1997) do represent empirically based sources of influence on social integration Active learning should be added to this growing body of knowledge on sources of influence on social integration

Moreover, the pattern of findings of this inquiry indicate that faculty classroom behaviors in general and active learning in particular may constitute an empirically reliable source of influence on social integration, subsequent institutional commitment, and departure decisions As a consequence, various facets of faculty teaching role performance may serve as a basis for the elaboration of Tinto's Theory Future efforts to revise Tinto's 1975 foundational theory through theory elaboration should include not only measures of active learning, but also other dimensions of faculty teaching role performance that might facilitate social integration, subsequent institutional commitment, and student persistence

Recommendations for Further Research

Because student learning constitutes the crux of the theoretical formulations guiding this inquiry, faculty teaching behaviors that affect—theoretically or empirically—student learning should be the focus of further research efforts designed to elaborate Tinto's theory Such faculty teaching behaviors might include various types of teaching methods, the application of principles of good practice, and adherence to norms governing teaching role performance To elaborate, faculty use of such teaching methods as the lecture, collaborative learning, and personalized systems of instruction are examples of teaching methods that might variously affect social integration, subsequent institutional commitment, and persistence

Faculty application of the seven principles of good practice—encouragement of faculty-student contract, encouragement of cooperation among students, encouragement of active learning, prompt feedback, emphasizing time on task, communicating high expectations, and respect for diverse talents and ways of knowing—described by Chickering and Gamson (1987) might also influence social integration, subsequent institutional commitment, and departure decision The application of these seven principles may influence the student departure process in general and social integration in particular because of the vigorous base of research that indicates that the application of these practices enhances student learning (Sorcinelli, 1991)

Faculty adherence to undergraduate college teaching norms might also wield an influence on social integration, subsequent institutional commitment, and persistence Such empirically derived proscribed undergraduate college teaching norms as condescending negativism, inattentive planning, moral turpitude, particularistic grading, personal disregard, and uncommunicated course details may hinder student learning of course content (Braxton & Bayer, 1999) As a consequence, students who take courses from faculty whose classroom decorum reflects these proscribed teaching behaviors may learn less from such courses In turn, this may negatively affect their degree of social integration as well as indirectly influence their subsequent institutional commitment and departure decisions

Future research should also explore the following explanations for the somewhat surprising failure in this study to document a relationship between our measure of group work and any of the key variables in this model of persistence Such a failure is particularly striking when we consider that another measure of engagement with peers, participation in class discussions, did have positive effects in the analysis There are at least two plausible explanations for this finding Both explanations suggest that we may have been somewhat imprecise in the construction of our variable intended to represent involvement by students in group work in their classes First, it is possible that the measure of group work that was created for use in this study does not appropriately capture this construct The scale that was used was created by combining two related, but possibly conceptually different, items One item assessed the extent to which students had been required by faculty to work together in groups The second item assessed the extent to which students had been required to work together in *cooperative* groups in class These two items may represent two *distinct* types of group work The second explanation is related to when the data for the two items in this scale were gathered Both items came from the ECES which was administered at the midpoint of the fall semester It is possible that this was simply "too early" a point in time at which to gather these data Had the data been gathered later in the year, students' perceptions of their time spent in these activities might have differed from their very early assessments regarding their involvement in group work Whatever the explanation for these findings, it is important that future research explore this relationship in greater detail

In addition to the considerations described above, the current study should be replicated in other types of colleges and universities Commuter institutions, in particular, should be the focus of such studies In comparison to residential colleges and universities, commuter institutions offer fewer opportunities for social interaction necessary for integration into the social communities of such collegiate institutions (Pascarella, Duby, & Iverson, 1983) As a consequence, considerable psychological energy is required of students seeking social interaction in commuter institutions Thus, students who experience active learning in the classroom may make the extra efforts necessary to develop friendships with their peers

Implications for Practice

The ability and/or willingness of faculty to use the pedagogical approaches found to be significant in predicting constructs in this model of college student persistence are related frequently to the size of the class being taught by the faculty member. Larger, "lecture style" classes make it difficult for faculty to employ active learning methods in the classroom However, it is precisely this type of class in which many first-year students are enrolled We suggest that there are at least two ways in which this concern can be addressed First, a number of strategies can be found that allow faculty to integrate active learning approaches into classes with larger enrollments Bonwell (1996) and Bonwell and Sutherland (1996) provide guidance regarding ways in which faculty can integrate aspects of active learning into lecture style classes to create *enhanced lectures* that will positively impact students These *enhanced lectures* (Bonwell, 1996) are "a series of short, mini-lectures punctuated by specific active learning events designed to meet class objectives" (p 33) Other active learning activities that can be incorporated into lecture style classes to create enhanced lectures include the pause procedure, short writes, think-pair- share, formative quizzes, lecture summaries, and classroom assessment techniques (Bonwell, 1996, Bonwell & Sutherland, 1996)

The second way in which this concern can be addressed is through the creation of more first-year seminar classes like those that have begun to appear on many campuses across the nation Clearly, the use of active learning techniques is easier in classes that have smaller enrollments These seminars can help students to understand what they need to know regarding what active learning methods are, the ways in which they work, and the advantages and challenges that are presented in these pedagogical approaches (Warren, 1997) Warren suggests that the best place for these activities to begin is during orientation programs These seminars also provide opportunities for cooperative partnerships between student affairs professionals and faculty He properly asserts that student service professionals have been using active learning for many years Hence, these seminars provide an opportunity for faculty and student affairs professionals to work more closely together to create a seamless connection between the curricular and the co-curricular activities of the college, a connection that has been called for in the *Student Learning Imperative* (American College Personnel Association, 1994) For example, on residential campuses, sections of freshman seminars could be organized based upon the living unit of students Faculty and residence hall staff could join together in teaching these seminars and work to create curricular and co-curricular experiences that can maximize the impact of these courses on students

It is important to consider what the findings of this study reveal in the context of information gleaned from other studies of persistence For example, Milem and Berger (1997) have established the important roles that involvement with peers and perceptions of peer support have in predicting social integration Given these findings, and our discussion in the paragraph immediately above, the impact of the use of active learning activities in the classroom is likely to be amplified if these methods are applied in classrooms that are linked to living/learning programs that are specifically designed for first-year students

The findings of this study also have implications for the type of questions that faculty ask students in class and for the development of questions asked on course examinations Although some class and examination questions at the knowledge level may be appropriate, faculty should strive to develop questions at higher levels of course understanding Bloom's (1956) *Taxonomy of Educational Objectives The Cognitive Domain* can provide faculty with thoughtful ways in which to do this Bloom provides a vocabulary and a framework for the development of examination questions that require a higher level of course understanding than knowledge level questions require

Frost (1991) recommends that advising programs be particularly attentive to the needs of first-year students Consistent with this recommendation, the findings of this study suggest that academic advisors (whether they be faculty, professional advisors, and/or peers) should encourage students to consider the pedagogical practices employed by specific faculty in classes when advising students about the courses that they should take For this suggestion to be successful, advisors must have information about the pedagogical practices faculty at their institution employ in the classes that they teach

Consistent with this line of thinking, student course rating instruments should be constructed in a way that gathers information on the frequency with which faculty use various active learning activities in the classroom. This information can provide faculty, administrators, and students with a means for understanding the connection between teaching role performance and a range of student outcomes (including student persistence). The information gathered from these instruments can also provide the information that is needed by advisors so that they are able to provide students with the information about faculty pedagogy that is described above.

Finally, individuals with responsibility for faculty development activities at colleges and universities should develop workshops, seminars, and discussion groups that assist faculty members in acquiring the knowledge and skills necessary to successfully incorporate active learning methods in the classes they teach. Most faculty have not received any training or support for their teaching activities as part of their graduate training. Rather, they are most likely to teach in the way that they were taught. Regrettably, few faculty have been taught in classes where active learning techniques were incorporated as the dominant form of instruction. Moreover, because most college and university faculty lack expertise in posing discussion questions and in writing examination questions that make fine-grained distinctions among levels of course understanding (Braxton, 1993), faculty development workshops that focus on these issues should also be created. These workshops should assist faculty in acquiring the skills necessary to develop questions that plumb the levels of understanding discussed by Bloom (1956).

An argument can be made that involvement in activities like these requires most faculty to make changes in the way in which they "normally" do things. Participation in these types of activities clearly is not the norm for faculty. Hence, it is important to consider factors that are likely to encourage faculty to be innovative in their pedagogical approaches. Finkelstein (1984) indicates that the willingness of faculty to be innovative in the manner in which they approach aspects of their work is influenced primarily by intrinsic factors relating to the personal and professional needs of the faculty member. However, organizational factors are likely to "increase their potency" (Finkelstein, 1984, p. 131) in the extent to which faculty feel that a specific innovation is something that the organization is demanding of them and/or is something on which faculty believe that the institution is placing great emphasis. Hence, institutions that clearly communicate the value that they place on active learning methods (and the role that these methods appear to have in the persistence process) can increase the likelihood that faculty will incorporate these methods into their classroom teaching practices.

Concluding Thoughts

The teaching practices of college and university faculty play a significant role in the college student departure process This role holds importance for both our understanding of the process of college student departure and for the improvement of institutional retention rates Both research and practice should increase efforts to enhance the pedagogical practices of college and university faculty members Such efforts might not only reduce student departure, but also increase student learning

Notes

[1] We acknowledge the recommendation of an anonymous reviewer of this manuscript that a distinction between active learning and academic integration be made

[2] Braxton (in press) makes a distinction between antecedents of social integration and social integration However, this distinction also directly applies to the difference between antecedents of academic integration and academic integration

[3] The notion of psychological energy is derived from Astin's (1984) Theory of Involvement In this theory, Astin asserts that involvement depends on the amount of physical and psychological energy students expend in different objects related to the college or university environment

[4] LISREL is an alternative statistical technique we might have used However, the major characteristics of LISREL were not needed to estimate the influence of active learning on social integration, subsequent institutional commitment and student departure decisions Specifically, the development of an instrument to measure active learning was not a purpose of this study Thus, the measurement component of LISREL was not needed, because our measures of active learning are best viewed as exploratory We also did not need to correlate the error terms of the various variables because of the paucity of research on this topic Put differently, a baseline of research is needed before error terms are correlated In addition, we wished to have the effects of all variables estimated rather than to constrain the estimation of the effects of some variables

[5] As evidenced by the zero-order correlations displayed in Table 3, high multicolinearity does not pose a problem to the execution of the path analysis From Table 3, it can also be observed that the zero-order correlations among the four measures of faculty active learning behaviors are low Based on these correlations, one might raise a question about whether the four active learning behaviors are measuring the same thing If we had measured faculty attitudes and values about active learning, then these low zero-order correlations among the four active learning measures would be problematic However, we measured faculty active learning behaviors The low zero-order correlations suggest that most faculty members may be choosing to use only one of the four types of active learning instructional behaviors The choice of one active learning behavior implies that active learning is valued Thus, these low zero-order intercorrelations do not suggest that our measures of active learning are problematic

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Scott L. Thomas

Ties That Bind

A Social Network Approach to Understanding Student Integration and Persistence

Introduction

Astin's (1993, p. 398) claim that peers are "the single most potent source of influence" in the lives of college students comes after decades of theoretical and empirical research examining the integrative nature of student experiences on the college campus. Review of the classic work of Newcomb (1943, 1962) and Newcomb and Wilson (1966), or the more contemporary observations of Horowitz (1987) or Moffatt (1989) demonstrates why student peer culture plays such a central contextual role in the understanding of a variety of college outcomes (e.g., Antrobus, Dobbelaer, & Salzinger, 1988, Chickering, 1974, Husband, 1976, Nora & Rendon, 1990, Stage, 1989, Terenzini & Pascarella, 1977).

One outcome theorized to be dramatically affected by student peer culture is persistence. Much of the student persistence literature places great emphasis on student integration into campus subcultures (Spady, 1971, Tinto, 1993). Two major comprehensive conceptual models of student persistence have emerged from the various theoretical perspectives on this phenomenon, Bean's Student Attrition Model (1980, 1982, 1983, 1990) and Tinto's Student Integration Model (1975, 1987, 1993). Al-

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though Tinto's integration model places a greater emphasis on the role of within-institution peer culture than Bean's organizational model, which emphasizes the role that external forces play in the persistence process, considerable overlap exists between the two, especially in terms of the role of organizational factors and commitment to the institution (Cabrera, Casteñeda, Nora, & Hengstler, 1992)

In both models, student commitment to the institution is theorized to be affected by peers' attitudes and pressures Bean theorizes that among other potential modifiers, the encouragement of close friends may enhance a sense of commitment to the institution (institutional fit and quality) Tinto postulates a similar relationship, namely that the higher the level of social integration the greater will be the commitment to the institution As integration is the central feature of the Tinto model it has therefore been carefully elaborated both conceptually and empirically This should not discount the theoretical role of social structure in Bean's model, for friendships, or social ties, are presumed to impact the extent of students' shared group values, support structure, and affinity for the institution in both models—simply in different ways

As many have pointed out, the operational measurement of the manifold dimensions of peer culture is often elusive Adequate measurement of the effects of these important influences requires knowledge of students' individual group identifications as well as their desires for group affiliation, membership, and, ultimately, acceptance (Astin, 1993, Kuh, 1995, Newcomb, 1943, 1962, Newcomb & Wilson, 1966)

The purpose of this study is to begin to explore such subcultural effects by assessing the role of student social structure in the persistence process Specifically, I explore the effects of social integration from a social network perspective a perspective that enables determination of subgroup membership and of the characteristics of relationships to and within those subgroups My concern in this article is to take a first step toward a more appropriate empirical elaboration of the integration constructs central to these models Accordingly, this study is exploratory in nature and is designed to examine the effects of structural integration on factors theorized to be central in the persistence process

Of the two major theories of student persistence, Tinto's Student Integration Model (1993) will be used as the framework for the development of a method that will enable the specification of a model incorporating a number of social network characteristics Although similarities exist between Bean's and Tinto's theories, especially in terms of the posited relationships between integration and persistence, the Tinto model was chosen as a framework due to its particular theoretical underpinning and the large volume of work explicating his theory Moreover, the purpose of this article is less to test a specific conceptual model than to assess the effects of structural integration on commitments, intentions, and persistence Both conceptual models highlight the importance of these effects.

The Student Integration Model

Drawing heavily from Durkheim's (1897/1951) foundational work on suicide, the role that social structure is presumed to play in the persistence process has been well detailed by Spady (1971) and further refined and elaborated by Tinto (1975, 1987, 1993) The Tinto (1993) model specifies a longitudinal process in which a number of background variables (e g , race, secondary academic performance, parental encouragement, etc) interact to form students' initial commitment to the college campus and to educational attainment goals These initial commitments are modified, over time, as a result of students' integration into the campus community Tinto (1993) theorizes that successful integration yields satisfaction that enhances these commitments and positively influences students' intentions to persist on a particular campus

Using the solar system as an analogy, Tinto (1993, p 123) makes reference to the numerous subcultures revolving around the center of institutional life Each of these subcultures has a unique character relative to that of the larger institution (Newcomb, 1962, Newcomb & Flacks, 1964, Newcomb & Wilson, 1966) Some are more marginal than others in terms of the dominant values of the institution, and some may provide a safe harbor for students with values deviant from those espoused by the institution, formally or informally (Newcomb, 1962, Newcomb & Flacks, 1969, Newcomb & Wilson, 1966) Accordingly, the Tinto (1993) model allows for differential impact of integration into these subgroups based on the relative congruence between the values of the group and the values of the larger institution

A number of studies have sought to validate empirically the global features of the Tinto (1993) model (e g , Munro, 1980, Nora, 1987, Nora, Attinasi, & Matonak, 1990; Nora & Rendon, 1990, Pascarella & Chapman, 1983, Pascarella, Duby, & Iverson, 1983, Pascarella & Terenzini, 1980, 1983, Terenzini, Lorang, & Pascarella, 1981) To date, however, none of the traditional quantitative research in this area has attempted to assess or capture the effects of subgroup membership and structural integration on commitments to the institution and persistence [1] Moreover, no research has systematically focused on the social processes mediating the effects of initial commitments on the affective measures of integration so often used to operationalize the integration constructs in the Student Integration Model

The most noteworthy line of empirical research examining the role of integration in a general sense is that begun by Pascarella and Terenzini (1980) Using a series of Likert-scaled items, Pascarella and Terenzini (1980) devised five factor-analytic scales operationalizing Tinto's (1975) integration and commitment constructs Later researchers were able to successfully replicate and employ these scales, concluding that they provide a reasonably stable predictor of student departure at the end of the freshman year (Terenzini, Lorang, & Pascarella, 1981) Subsequent research, on various different types of campuses, suggested that, although the scales yielded better results on residential campuses, the original scales provide a reliable basis on which to differentiate persisters and departures at the end of the first year (Bers & Smith, 1991, Fox, 1984, Pascarella & Chapman, 1983, Pascarella, Duby, & Iverson, 1983) Thus, until recently, it was presumed that the Tinto (1993) model and the empirical measures validating it were generalizable across a variety of settings

The large body of work testing various aspects of the Student Integration Model enabled a recent comprehensive assessment of the model's empirical validity (Braxton, Sullivan, & Johnson, 1997) The authors of this effort concluded that, despite the near paradigmatic nature of the model, the peer-reviewed empirical research since the model's inception in 1975 offers only partial support for Tinto's overall theory Of 13 primary propositions comprising the Tinto model, 5 were found to be "vigorously" supported by Braxton et al (1997) Among these "vigorously" supported propositions were the two that define the relationships between social integration, commitment to the institution, and persistence—two propositions of especial interest in the current inquiry

Much of the work reviewed and summarized by Braxton, et al (1997) has provided a good first step in elaborating the many cultural nuances implicit in the Tinto (1993) model However, current methods in the persistence literature assess social integration with sole reliance on students' own accounts of how strongly they identify, and feel membership, with other students in general This overlooks the effects of structural integration implicit in the Tinto (1993) model and noted in much of the earlier work on student culture Moreover, measures and methods used to this point in time render incapable any attempts to consider the potential effects of individuals' connections to their peer groups Such consideration follows logically from Tinto's (1993) planetary analogy The method laid out in this article enables the empirical development of the planetary model used by Tinto (1993), thereby allowing the portrayal of relationships between the institution, its subcultures, and its individual students

A brief introduction to social network analysis is in order to provide the tools necessary for understanding the methodology employed in this article This introduction appears in the following section

Social Networks

The social network paradigm emerged in the late 19th century, figuring prominently in Durkheim's (1897/1951) groundbreaking work on suicide—the same work undergirding the development of Tinto's Student Integration Model Since that time, social networks (the sets of acquaintances and friendships that define one's relations with others) and social network theory have made significant contributions to a number of fields

The quantification and measurement of human relations and group formation present unique methodological problems for the researcher Myriad combinations of relations can be present in a group as multiple networks, distinct sets of relations, and ties can exist within a single group at any one time (Tichy & Fombrun, 1979) Festinger (1949) and Forsyth and Katz (1946) pioneered the quantification of such relations by operationalizing interpersonal ties using binary arrays Each row and column within these arrays was used to represent an individual actor and each cell expressed the status of a relationship between any two actors

A great deal of information can be gleaned from these matrices For example, by calculating row totals, one can determine the number of ties reported by any one person Similarly, the column totals provide useful information about the number of times each individual is nominated by others in the network

More complex matrix algebraic techniques permit the extraction of subgroups based upon similar ties and enable the calculation of a host of network theoretic measures Much of the early work employing these more sophisticated techniques allowed researchers to better define relationships in small networks (e g , Alba, 1973, Forsyth & Katz, 1946, Harary, Norman, & Cartwright, 1965) The subsequent advent and availability of microcomputers has enabled network researchers to expand the size of the networks being analyzed and made this a feasible methodological approach to understanding the complex relationships in larger networks

Numerous descriptive measures of networks have evolved from this field of research Structural measures of networks may address the characteristics of individual positions, dyadic (between two individuals) or triadic (between three individuals) ties, or other structural configurations in the context of the larger network (Tichy, 1981, Wasserman & Faust, 1995) Such structural descriptors enable the researcher to address questions of network size (how large is the network?), density (of all possible relationships, what proportion actually exist?), reachability (what is the average number of people separating any two members of the network?), and centrality (does the network include many people with a large number of relations, or only a few?)

Among the most frequently used descriptive network measures is centrality Centrality can be broadly conceptualized as the degree to which the network or an individual in the network is in a position to influence others in the group or network (see for example, Brass, 1984, Laumann & Pappi, 1976, Pfeffer, 1981) It is often assumed that persons at the center of the network, on whom many others are dependent, are in more central, and hence more powerful, positions than those located on the periphery of the group (Marsden & Laumann, 1984) Central actors are better able to acquire information and resources from throughout the network thereby enabling them to be more influential (Raven, 1965) Moreover, research has shown that central actors are not only likely to enjoy a greater number of communication channels but also are more active in using these channels (French & Snyder, 1959)

Many measures of centrality have been proposed over the years One of the earliest and most common of these measures captures the degree to which an individual is connected to others (e g , Shaw, 1954) Very simply, those reporting more ties (by nominating others as friends, discussion partners, or some other relationship dimension of interest) are more connected to the others in the network and therefore more central in terms of communication or social exchange Such "degree"-based measures of centrality are calculated by summing the number of nominations made by an individual (outdegree), the number of nominations received by an individual (indegree), or some combination of these two

A group of more complex centrality measures have evolved to address a number of network theoretic concerns (e g , Friedkin, 1991) One of the members of this class of measures captures the extent to which an individual is connected to other central individuals (Bonacich, 1987) The rationale for this measure is that individuals with the ability to influence other central (i e powerful) members of the network are in better positions to influence communication flows and exchange within the network or group (Bonacich, 1987, Hubbell, 1965)

Social Networks and Social Integration

Measures of centrality can be viewed as *de facto* measures of structural integration—by definition, those with higher centrality find themselves more integrated into the network or group It is important to note that, as it is used here, centrality is defined purely by individuals' reports of communication ties and can therefore be understood as an emergent feature of the underlying social structure. Thus, centrality provides a means for assessing individuals' degrees of group or subgroup integration. In the context of social integration, the ability to measure degrees of structural integration facilitates a more realistic empirical examination of its effects on commitments and persistence by enabling control over the connections to subgroups in which students integrate. This is a central but empirically unexploited feature of the current line of work on student persistence. Moreover, it follows from the vast student persistence literature, empirical and theoretical, that network characteristics might impact students' perceived integration, academic performance, commitments, intentions, and persistence behavior.

The social network paradigm therefore provides a unique way of understanding social integration and the Student Integration Model. The Student Integration Model specifies a modification of students' initial intention and commitment as a direct result of integration into the campus community. Integration, in a structural sense—that is, students' actual degrees of connectedness with other students—can be readily measured with knowledge of the universe of students' on-campus associations. This study surveys such a universe and measures a variety of structural aspects of student relations and subgroups. These structural measures are then incorporated into a traditional empirical model used to simultaneously estimate their impacts on persistence. The results from this approach extend previous empirical work by illuminating the structural features of student relationships and subgroups that are posited to be associated with student persistence.

Data and Methods

The methodological approach is presented in this section of the article. In addition to a description of the sample, this section details the collection of data from a census of reported social ties in a freshman class. A presentation of how these data on student social ties are then used to calculate measures of overall and subgroup integration is also provided. These measures are ultimately incorporated into an empirical model of student persistence that is detailed here as well.

Sample

Data were collected during the 1992–1993 academic year from all first-time freshmen at a four-year private liberal arts college located in the western United States.[2] The college has a coed student body and maintains interdenominational affiliations. Although the school's roughly 1200 students come to the campus from the majority of states and many countries throughout the world, the highest percentage hail from within state Approximately 60% of the students are women, 40% are men, and 10% are from racial or ethnic minority groups Only 10% of the student body reside off-campus, and a full 98% of the freshman class reside in one of the on-campus dormitories

Data from various sources were collected as part of a broader longitudinal data collection effort. The data used in the analysis reported here come primarily from survey data collected at the end of the first year, in early April of 1993, and are supplemented by background information taken from a questionnaire administered during orientation and data collected from the college's registrar The initial survey, the Freshman Summer Survey was administered during mandatory orientation and registration, in August 1992, one week prior to the beginning of the fall semester This survey elicited information on students' commitment to educational goals, confidence in their choice of the college, and expectations for the first year Another questionnaire, the First Year Experiences Survey, was mailed to students toward the end of the second semester in April 1993 This instrument incorporated items included on Pascarella and Terenzini's (1980) follow-up survey from which their integration scales were derived as well as a variety of questions tailored to capture different aspects of students' experiences to that point in the academic year

Structural data used to define the students' social networks were collected in a section of this follow-up survey This was accomplished by asking respondents to list the names of those students with whom they frequently spoke and the dimensions on which they related to these other students (e g , close personal friend or a source of academic or social advice) [3] Usable responses (including complete network data) were received from 322 of the 379 students (85%) enrolled for the spring 1993 semester [4]

Shortly after the close of the spring semester, grade and enrollment data for the first year were collected from the registrar Finally, at the end of the third week of the fall 1993 semester, enrollment data were collected from the registrar to identify those students returning to the campus for their sophomore year

Models

The model used in this study is based upon the results of a large body of empirical research testing various aspects of Tinto's Student Integration Model This literature demonstrates the importance of a number of constructs that are theoretically central to student persistence These include academic integration, social integration, institutional commitment, goal commitment, and persistence intentions Student GPA, traditionally used as a measure of academic integration, was incorporated as a separate construct after preliminary analyses suggested they were independent of one another This modification is consistent with previous work that also found these items loaded poorly as a single measure of academic integration (Cabrera et al , 1992)

The effects of social network characteristics are of central concern in this study In order to assess the effects of these structural characteristics on the traditional components of the Tinto model, several network measures were incorporated Each of these measures captures a different dimension of network centrality that is presumed to affect the constructs in the Student Integration Model. In addition, three background factors and two baseline measures of commitment were included as controls[5]

The model was estimated using LISREL 8 as a single level path model[6] This strategy enabled the testing of more complex relationships than would have been possible using in ordinary regression or discrimi-

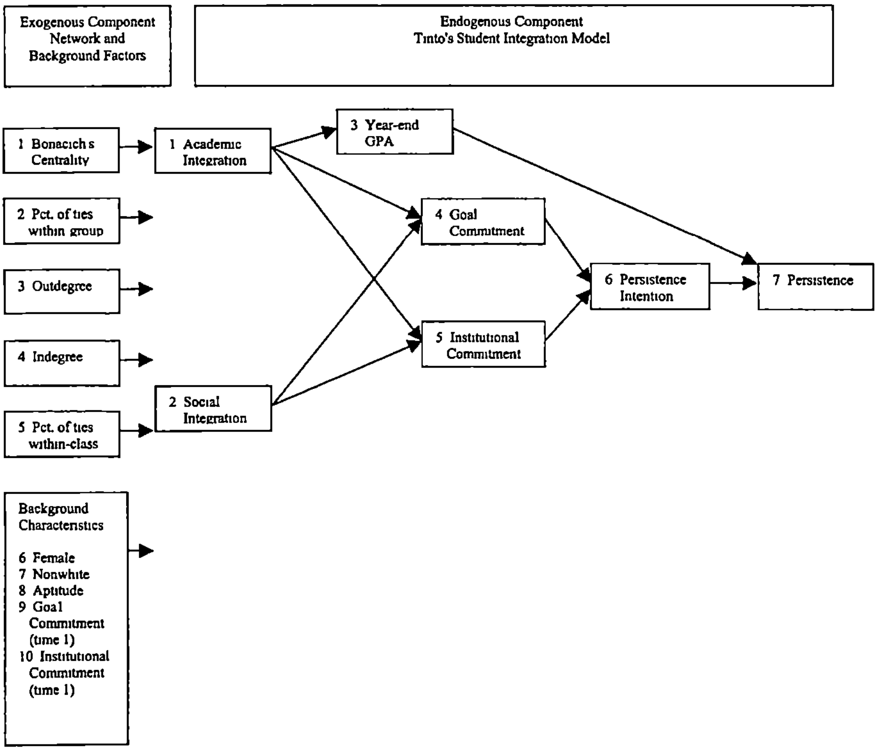

FIG 1 Hypothetical Model

nant analysis methods (see Braxton, Duster, & Pascarella, 1988, Stage, 1990) Of especial interest in the current study are the various ways the observed network characteristics might impact persistence directly and indirectly through the intervening constructs specified in the Student Integration Model Path analytic techniques enable the simultaneous estimation of a number of hypothesized effects and provide a decomposition of those effects across all other variables in the model—thereby providing estimates of the direct, indirect, and total effect of any predictor in the model Although the focus of this article is exploratory—that is, I am primarily interested in assessing the effects of student network characteristics—future work in this area will be directed at the development of an elaborated persistence model

I employed a specification that measured persistence as a dichotomous outcome—a specification that challenges the traditional assumptions of linear models (Pedhazur & Schmelkin, 1991) These challenges were addressed by first using PRELIS (Joreskog & Sorbom, 1993b), a program that conditions correlation matrices containing variables measured on non-continuous scales PRELIS provides correct correlation estimates among continuous and non-continuous variables as well as an estimate of the asymptotic covariance matrix under arbitrary non-normal conditions The asymptotic covariance matrix was then analyzed in LISREL 8 using a weighted least-squares (WLS) solution This method yields correct estimates of standard errors and chi-square values under non-normality when one or more of the observed variables are non-continuous (Joreskog & Sorbom, 1993b, see also Cabrera et al (1992) and Cabrera, Nora, & Casteneda (1993) for other examples employing structural equation models with dichotomous outcomes)

Variables

Endogenous variables Table 1 contains descriptive statistics for all the variables used in the study From the Student Integration Model, seven endogenous variables were specified Social integration is a factor composite of 3 indicators taken from the First Year Experiences Survey These three indicators assess the degree to which students have developed satisfying personal relationships that have had an impact on their personal growth and attitudes Academic integration is measured by a factor composite of 3 indicators assessing the extent of students' satisfaction with academic experiences and the degree to which these experiences have influenced their interest in ideas Institutional commitment is measured by a factor composite of 2 indicators, students' sense of the importance of graduating from the institution and the degree to which they feel they made the right decision in attending the institution Educational goal commitment is measured by a question asking students to indicate the degree to which they felt it important to graduate from college Students also indicated the likelihood of their enrollment at the college for the fall 1993 term This item was used to measure enrollment intentions All of the aforementioned endogenous items were taken or constructed from the First Year Experiences Survey Finally, persistence was measured using enrollment data for the third week of fall 1993 classes Students enrolled during that period were considered persisters

Exogenous variables As Tinto (1993) and much of the literature on campus culture suggest, student subcultures provide a backdrop for students' interpretation of the college experience (e g , Newcomb & Flacks, 1964) Accordingly, meaningful measures of subgroup integration necessitated the partitioning of the larger network into subnetworks or cliques that better portrayed these reference groups

This partitioning was accomplished using a hierarchical clustering algorithm in order to analyze a matrix of the shortest paths (geodesics) between each of the network members All network measures were computed using SNAP (Friedkin, 1994) and are based solely on the discussion network (With whom do you frequently talk?) The total set of people who could be reached directly or through no more than ten others was calculated for each individual in this network [7] This resulted in a "distance" matrix where each individual had a distance value for all others in the network These values ranged from 0 to 10, where 0 indicates that a student could not reach a particular peer through ten people or less, 1 indicates that the student and peer are directly linked, 2 indicates that the student can reach the peer in question through one other person, and so on To provide the least restrictive scenario of relationships and to resolve situations where one student claims direct friendship with another that is not reciprocated, the distance matrix was symmetrized using the minimum value for every pair—if a student's report located him or her four steps removed from a particular peer, but that peer was only two steps removed from the student, the pair would receive a score of two The symmetrized distance matrix was then partitioned using a hierarchical clustering algorithm employing maximum linkage (see Friedkin, 1998)

The results from the hierarchical cluster analysis provided a series of cliquing solutions (sets of common relationship patterns) representing logical subgroupings of students These solutions were interpreted according to the maximum distance within each of the subgroups identified For example, a group in which each member can reach any other member directly is considered a 1-clique That is, each member can reach all others in the group in one step A 2-clique is defined as any group in

TABLE 1

Descriptive Statistics

Variable Name	Mean	SD	Description
Academic Integration Factor Composite[a]			
ACADFACT	0.000	1.000	Factor Composite: alpha = 0.84
ACADSAT	4.000	0.924	Satisfaction with academic experience
IDEVSAT	3.888	0.924	Satisfaction with intellectual development
ACADGROW	4.028	0.849	Impact of academic experience on personal growth and interest in ideas
Social Integration Factor Composite			
SOCFACT	0.000	1.000	Factor Composite: alpha = 0.92
DEVLREL	4.372	0.933	Developed close personal relationships with other students
RELTGROW	4.291	0.934	Impact of personal relationships on personal growth and attributes
FRNDSSA	4.233	0.977	Friendships have been personally satisfying
Institutional Commitment Factor Composite			
ICFACT	0.000	1.000	Factor Composite: alpha = 0.71
GRADHERE	2.601	1.251	Importance of graduating from THIS college
CONFIDEN	4.109	1.002	Confidence in choice of this college
Educational Goal Commitment Proxy			
GCOMMIT2	4.695	0.763	Importance of graduating from college
Persistence Intentions Proxy			
INTENT	4.093	1.151	It is likely I will attend this college next year
Academic Performance Proxy			
GPA	2.888	0.584	Cumulative grade point average at the end of the freshman year (0–4 scale)
Persistence Behavior			
PERSIST	0.83	0.38	Enrolled during third week of fall 1993 semester? (0 = enrolled, 1 = not enrolled)
Network Measures			
PBCEN	0.937	0.478	Bonacich's (1987) centrality (range = 0–2.05)
PCTWGT	18.573	15.382	Percentage of total ties falling within clique
PCTWCT	65.707	21.154	Percentage of total ties falling within freshman class
ODG1750	14.150	6.930	Number of nominations (range = 1–32)
INDG413	8.280	3.780	Number of nominations received from others (range = 0–20)
Background and Control Measures			
FEMALE	0.72	0.45	Gender (0 = male, 1 = female)
NONWHITE	0.11	0.32	Race (0 = white, 1 = nonwhite)
APTITUDE	1011.86	169.25	Combined SAT score (400–1600)
GCOMMIT1	3.810	0.444	Importance of graduating from college (range 1–4)—time 1
ICOMMIT2	3.453	0.678	Importance of graduating from THIS college (range 1–4)—time 1

NOTE. All time relevant variables measured at time 2 unless otherwise noted.

[a] Unless otherwise noted, all indicators are measured on a 1-5 scale with high values indicating agreement.

which the members can reach any other member of that group by going through a maximum of one other person. For example, consider John, who may not know Mary, who is also a member of his group, but does know another member of the group, Henry, who knows Mary, thus allowing John to reach Mary through one intermediary, Henry John can reach Henry in one step and Mary in two steps (John→Henry→Mary) Similarly, 3-cliques can be defined as groups in which any member can contact any other member with the help of a maximum of two or fewer intermediaries (i e , within three steps). This logic extends through *n*-cliques

The opportunity for social influence is greater when actors are more proximate Research suggests the existence of a threshold at the 2-clique level after which the potential for influence is greatly diminished (Friedkin, 1983, 1998) Based on this knowledge, student cliques were established according to the most conservative 2-clique solution The discussion network yielded 83 distinct 2-cliques These ranged in size from 1 to 11 students each with a mean membership of 4 01 students each One isolate, a student who could not be connected within two steps, was found (group size 1) A number of clique level summary measures are shown in Table 2 to provide a general sense of the ways cliques vary on some characteristics of interest to social science researchers Although these differences are not modeled in the present study, the exploitation of such differences provides promising areas for future research

Five variables capturing theoretical dimensions of social network centrality were treated as exogenous Network degree comprised two of these measures The variable ODG1750 represents the number of acquaintances named by each student (outdegree), while INDG413 reflects the number of nominations received from other members (indegree) of the freshman class The degree to which a student is connected to other more highly connected peers was assessed using Bonacich's

TABLE 2

Summary Measures of Selected Clique Characteristics

Variable Name	Mean	SD	Description
PERSIST	80 29	0 25	Group persistence rate
GPA	2 88	0 39	Group grade point average
APTITUDE	1019	116	Group SAT average
MINORITY	12 54	20 10	Proportion of nonwhites in group
FEMALE	66 97	36 36	Proportion of females in group

(1987) weighted centrality score (PBCEN) The degree to which a student is connected to other members of his or her immediate peer group was measured by calculating the percentage of the student's ties that fell within (as opposed to outside) that student's peer group (PCTWGT) Similarly, calculating the percentage of a student's ties that fell among members of the freshman class itself captured the degree to which students report acquaintances with upperclassmen (PCTWCT) Summary statistics for these measures are found in Table 1 above

In addition to the network measures, a number of background factors were treated as controls These include gender, race, aptitude, and baseline measures of commitments to educational goals and the college

Results

Figure 2 presents the LISREL parameter estimates for the model Only statistically significant paths appear in this figure As my purpose is to use the Student Integration Model as a starting point to assess the degree to which the social network characteristics impact commitments and persistence, I used the modification indices produced by LISREL to identify additional paths among the exogenous variables in the model

Given the exploratory nature of the study, the overall fit of the final model is very good with a chi-square of 55 87 ($df = 55$, $p =$ 0 44), sug-

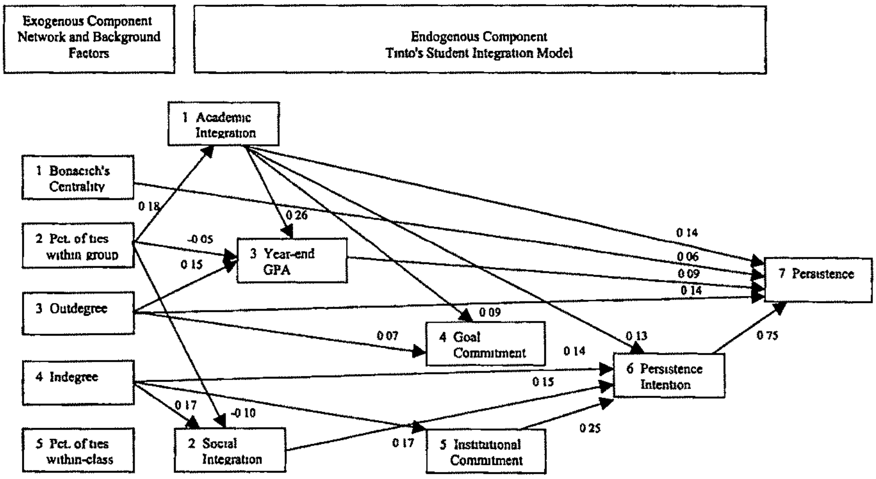

FIG 2 Estimated Model

NOTE *Background and control factors not included in Figure 2 are FEMALE, NONWHITE, APTITUDE, GCOMMIT1 and ICOMMIT1 See Table 1 for definitions gesting that the model presented in Figure 2 should not be rejected on statistical grounds This chi-square value is consistent with various other fit indices for the model It is important to note that the model does not account for measurement error—that is, all constructs are being treated as observed—and that is likely reflected in the highly desirable values for these fit indices However, even taking this into account, the values of the various fit indices uniformly suggest the model fits the data adequately, thereby lending confidence to interpretation of the parameter estimates

The parameter estimates in Figure 2 are indices that represent the simultaneous contribution of each variable in the overall model The values are standardized path coefficients, which permit the comparison of size differences in the magnitudes of the coefficients (see Stage, 1990, for a discussion of such comparisons) Because the focus of this article is on the effects of structural network characteristics, paths from the background variables are not shown in Figure 2 [8] All reported effects are net of the effects of these background characteristics and initial commitments

Endogenous effects Controlling for other factors in the model, academic integration had a direct impact on intentions comparable to that of social integration (0 13 v 0 15) Academic integration was also found to directly impact persistence (0 14) and therefore has a larger total effect on this final outcome Interestingly, neither of these effects was mediated by commitments, as theorized in the Student Integration Model In addition to affecting intentions, academic integration also had a nontrivial impact on GPA (0 26), which, in turn, also had a direct effect on persistence (0 09) Whereas institutional commitment was found to influence intentions (0 25), no such effect was found for goal commitment The role of commitments in the endogenous component of the model then is mixed, and, with the exception of GPA (0 09) and academic integration (0 14), only intention was found to directly impact persistence behavior (0 75), net of the effects of all other variables in the model

The absence of a number of theorized paths in the Student Integration Model is also noteworthy For example, no link was found between academic integration and institutional commitment Moreover, goal commitment was found to have no impact on intentions, net of all other variables in the model Most obvious, however, is the absence of significant paths from the social integration parameter This is most likely an artifact of the social network variables that behave in a fashion that is theoretically consistent with the traditional social integration construct. This would result in an attenuation of the affective traits used to operationalize the traditional social integration construct

Network effects. LISREL 8 permitted the testing of all possible paths linking the network variables to the constructs in the traditional specification of the Student Integration Model. Through an iterative process, nonsignificant paths were deleted from the model. The final model therefore, contains only paths found to have a statistically significant effect on one or more endogenous variables.

Several notable network effects emerged from the analysis. In preliminary specifications, student outdegree, the number of nominations made, was found to negatively impact GPA while positively impacting educational goal commitment. Upon subsequent descriptive and correlational analyses of the outdegree-GPA relationship it became apparent that a moderate positive association exists between these two variables for those at the center of the distribution (33rd percentile through the 66th percentile), and a moderate negative association exists for students at higher and lower levels. Based on this, student outdegree was recoded into two categories, high/low (the lower and upper 1/3) and middle range (middle-third). In practical terms, this suggests that a range exists at which a greater degree of connectedness results in a positive GPA return. Advantages associated with the number of student acquaintances are not, however, enjoyed by students reporting small communication networks (7 or fewer) and are offset for students reporting large communication networks (17 or more).[9] This modified measure of outdegree was found to directly and positively impact two academic components of the model, GPA (0.15) and goal commitment (0.07), as well as persistence (0.09).

In contrast to the relationships between outdegree and the academic components of the model, student indegree, the number of nominations received by others, primarily impacted the social and institutional components of the model. Indegree was found to positively affect social integration (0.17), institutional commitment (0.17), and intentions (0.15). Interestingly, this was the only variable in the model that was found to affect student commitment to the institution, the variable that has the largest direct impact on intentions (0.25). This, combined with the positive impact of indegree on social integration, makes the total effect of indegree on persistence comparable to that of outdegree (0.16 v. 0.15, see Table 3).

The percentage of self-reported ties that fall within a student's peer group, PCTWGT, was found to negatively impact GPA (–0.05), academic integration (–0.18) and social integration (–0.10). This measure can be viewed as the extent to which a student is bound to her or his peer group to the exclusion of connections to those in other peer groups. Students with fewer out-of-peer-group ties have less of an opportunity to be influenced by individuals in the broader network. From a resource standpoint, these students are more reliant on others in their peer group for various forms of social and academic support and are therefore less able to turn outside this circle (see Granovetter, 1973). It might be said that relatively peer-group-bound students are more "provincial" than are their classmates with a wider range of connections. For the reasons given above, this provinciality may result in lower levels of satisfaction with social and academic adjustment as well as lower academic performance and a lesser likelihood of persisting.

Bonacich's (1987) measure of centrality (the degree to which a student is connected to other connected students) was found to have a small but direct positive impact on persistence (0.06). Taken together, these effects support the notion that student networks can and should be viewed as pools of social and academic resources from which students draw. In contrast to the provincial nature of students tightly bound to their peer groups, students with greater degrees of connectedness to peers who are also highly connected might be seen as social cosmopolitans—students who are able to move in and out of other peer groups, accessing resources as desired, with relative ease.

After controlling for the effects of other factors in the model, the remaining network measure, PCTWCT, capturing the percentage of students' nominations falling within the freshman class had no significant effect on any of the endogenous variables.

Decomposition of Effects

Summarizing the findings, Table 3 displays the total and decomposed network effects on the endogenous variables in the model. All three measures of structural centrality were found to have important effects on a number of constructs in the Student Integration Model. Two of these measures of centrality, student outdegree and Bonacich's (1987) centrality measure, were even found to have direct effects on persistence, net of all other factors in the model. The largest total effects of network characteristics on persistence were associated with student indegree (0.16), the number of nominations received from other students in the freshman class, and student outdegree (0.15). In contrast with outdegree, the impact of indegree was solely indirect, operating through enhanced social integration, institutional commitment, and intention.

The percentage of ties falling within one's peer group was found to have significant negative impacts on a number of constructs. For example, those with a higher proportion of within-group ties had lower levels of social and academic integration as well as lower grade performance. However, much of this negative effect was offset by other, positive, net-

TABLE 3

Direct, Indirect, and Total Effects of Network Variables on Traditional Persistence Constructs

	Academic Integration	Social Integration	GPA	Institution Commitment	Goal Commitment	Intent	Persist
PBCEN							
Direct	—	—	—	—	—	—	0 06
Indirect							0 00
Total							0 06
OUTDEG							
Direct	—	—	0 15	—	0 07	—	0 14
Indirect			0 00		0 00		0 01
Total			0 15		0 07		0 15
INDEG							
Direct	—	0 17	—	0 17	—	0 14	0 00
Indirect		0 00		0 00		0 07	0 16
Total		0 17		0 17		0 21	0 16
PCTWGT							
Direct	–0 18	–0 10	–0 05	—	—	0 00	0 00
Indirect	0 00	0 00	–0 05			–0 04	–0 06
Total	–0 18	–0 10	–0 10			–0 04	–0 06
PCTWCT							
R^2	0 07	0 08	0 40	0 17	0 33	0 34	0 26

work influences, yielding a total effect on persistence of -0 06 In short, students with a greater proportion of ties falling within their own peer group are slightly less likely to persist even after controlling for all other variables in the model

Variance explained in the estimated parameters ranged from 7% for academic integration to 40% for GPA, with 26% of the variance in persistence being accounted for

Conclusions and Implications

The results from this analysis suggest a new perspective for understanding student integration–a perspective in which integration is expressed as a function of individual social ties The relationships between the social networks, integration, and persistence examined in this study are put forward to advance the understanding of the role of social interactions in the persistence and attrition process

The picture that emerges from this examination is one portraying the differential effects of various network characteristics on persistence These effects operate through satisfaction, performance, commitment, and intention This study has demonstrated some of the ways that social structure informs traditional conceptualizations of student integration—a construct central to theories of student development and persistence It also demonstrates that previous operationalizations of integration have missed an important, albeit difficult to measure, dimension of the construct—structural integration in students' social networks

The research reported here has implications for practice as well as theory One important confirmation made by this study is that student acquaintances (from a structural perspective) are generally a good thing. This finding validates the efforts of student affairs personnel who have traditionally been concerned with creating greater levels of connectedness and fostering a sense of belonging among students. While the number of student acquaintances is important, this study suggests that their structural location also has important impacts on vital outcomes, such as satisfaction, grade performance, and persistence Two findings highlight this First, a broader discussion network is better Those students with a greater proportion of ties outside of their peer group perform better academically and are more likely to persist Second, similar benefits accrue to those students who develop ties with other students who themselves have broader ties From a resource perspective, those students who possess broader, well-connected networks, such as those described above, are able to more easily make connections with others due to the multitude of paths reaching to many parts of the overall network.

These findings might help guide the development of activities aimed at enhancing and maintaining student connectedness on campus Activities and residential situations designed to encourage the development of student relations should also be designed to enhance cross-clique diversity and foster opportunities for nurturing and connecting emerging student social leaders In short, these results call attention to the importance of not only connecting students but also, and perhaps more importantly, helping students develop a portfolio of relations that can provide key resources (academic as well as social) over the freshman year

Knowledge that an optimal size exists for the communication networks of freshmen might encourage those working in student life to identify and support activities and residential arrangements that encourage a moderate and supportive set of student relations while paying attention to the potential negative effects of situations that promote an overabundance of such relations The implicit caution here is that too much connectedness can actually be a bad thing in terms of academic performance during the first year

While promoting environments that encourage an ideal number of relations from a particular student's perspective (outdegree) can be helpful in terms of academic outcomes such as grade performance and goal commitment, these results suggest it is also important to help maximize the number of student relationships that are viewed as mutual Reciprocated relations boost the likelihood of a student being named as a relation by others (indegree), which in turn has a positive and direct impact on students' sense of affective social integration, commitment to the institution, and intention to persist

The idea that the quality of student associations is important is not a new one of course For example, a great deal of attention has been paid to the quality of student associations in terms of cognitive development (e g , Ory & Braskamp, 1988, Pace, 1990), identity formation (e g , Komarovsky, 1985), academic self-image (e g , Pascarella, Smart, Ethington, & Nettles, 1987), and attitudes (Milem, 1998) to name only a few Social network approaches such as the one reported here provide a richer understanding of these types of relationships and outcomes as well as a promising avenue for further research in these areas

Future Work

This study was conducted on a campus that is very different from those that the majority of undergraduates experience—almost all of those attending the study campus were upper middle-class, full-time, residential students Therefore, similar work should be conducted on other types of campuses to determine the degree to which "outside" influences (e g , personal ties and commitments) alter the impact of the network characteristics examined here We might discover that network effects such as those examined here are more potent among nontraditional students who often do not have the luxury of a full-time, sole commitment to college Moreover, because this study focused on freshmen, it would be fruitful to assess the degree to which these findings are generalizable to upperclassmen This study also generates a number of questions about potential differences based on race and gender All of this encourages further examinations of this kind in more diverse settings

The results reported in this article suggest three distinct of areas to which future work should be addressed First, an elaboration of contemporary persistence models, theoretically embedding social relationships and network effects, is in order Second, as social relations are multidimensional (e g , casual acquaintances to close personal friendships), future work should assess the differential impacts of these ties on these various dimensions Finally, and perhaps most importantly, the methods developed here should be employed in future research to examine subgroup influences that are theorized to operate as students form attitudes and make decisions concerning various issues central to student learning and success

Notes

[1] See Attinasi's (1989) study of Mexican-American students "getting in" for an exceptional qualitative consideration of the role of peers in the persistence process

[2] There exists no real alternative to a full census for the conduct of most forms of social network analysis An alternative, however, would be to sample autonomous student groups (e g , from different colleges) to conduct a network analysis on each group and to draw inferences to the population of groups from which the sample was drawn

[3] In this article, ties from the most general of these networks, the discussion network, were used as the basis for identifying peer groups As criteria for a relationship becomes stricter (source of academic advice, or a close personal friend), the size of the networks becomes quite small For example, one may have only one or two others whom she considers as close personal friends but is most likely influenced by the much broader set of others with whom she is in frequent contact The larger discussion networks would, therefore, seem to be a better approximation of genuine subcultures

[4] While the 57 nonrespondents compromise the representativeness of the overall network structure to some degree, subsequent analysis in which these missing relations were imputed (by reciprocating the ties of those reporting links with them) reveals a quite similar structure This suggests that the overall social structure is relatively stable with nonrespondents most likely to be members of established cliques rather than at the center of new cliques that do not appear in the current analysis

[5] Because my interest in this article is on the effects of the structural characteristics of students' social networks, the background and baseline measures are treated as exogenous controls

[6] Although LISREL is capable of producing complex models that incorporate latent variables and associated measurement error, the purpose of this examination is to assess the degree to which structural characteristics of students' social networks impact known features of the Student Integration Model, namely commitments and persistence Had my purpose been to develop or test alternative models, I would have incorporated these features into the present analysis

[7] It is assumed that if a student cannot "reach" another in the network through ten others, there would exist very little opportunity for influence between the two actors

[8] There were a number of significant paths from these control variables Initial commitment to educational goals was found to impact academic integration (0 08), educational goal commitment (0 53), and intention (0 19) Initial commitment to the college was found to affect levels of social integration (09), institutional commitment (0 34), and intention (0 29) Women exhibited higher levels of academic and social integration (0 08 and 0 11 respectively), lower levels of commitment to educational goals (–0 22), higher GPA (0 21), and were less likely to persist (–0 06) Nonwhites had lower levels of academic and social integration (–0 18 and –0 17 respectively), and stronger commitment to educational goals (0 15) Aptitude, as measured by the SAT had a strong effect on GPA (0 56) and a direct effect on persistence (0 09)

[9] It is very difficult to fit nonlinear models with existing software such as LISREL Joreskog and Yang (1996) advise against the routine application of techniques to assess such relations due to inherent theoretical and interpretive problems

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Review Essay

Designing State Higher Education Systems for a New Century, by Richard C Richardson, Kathy Reeves Bracco, Patrick M Callan, and Joni E Finney Phoenix, AZ Oryx Press, 1999 219 pp $34 95

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In this skillfully written book, which highlights findings from a national qualitative study on state higher education governance, the authors investigate how states differ in the design of their governance structures, what differences in performance are related to choices of governance structures, and how structure affects the strategies available to state policymakers with regard to their state's higher education system The book compares the large and diverse state higher education systems of California, Florida, Georgia, Illinois, Michigan, New York, and Texas

For each state, the authors collected documents, examined archival data, and conducted interviews to obtain multiple sources of information about context, system design, governance structures, and performance More than two hundred state legislators, legislative staff, representatives from governors' offices, representatives from state budget and research agencies, state higher education agency officials, system and institutional presidents, chancellors, and board members and faculty were among the interviewees In addition, knowledgeable insiders from each participating state reviewed case reports for accuracy The authors used the information they gathered to explain relationships among policy environments, system designs, leadership, and performance for each state and then tested that explanation against the remaining states, modifying their conclusions until they found a "best fit" for all seven

Chapter 1 provides an overview of the evolution of state higher education governance structures and introduces the concepts that later guide the organization of findings across states Richardson and his colleagues

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establish a conceptual framework that captures the range of policy environments and system designs found in the seven states To examine differences and similarities among systems, they map the states on three continuums state policy role (provision of resources, regulation, consumer advocacy, steering), system design (segmented, unified, and federal), and leadership style (technical, strategic, and adaptive) The reader will find this classification more useful than traditional classifications used to categorize governance structures The order of the seven case study chapters derives from the design of the respective systems The authors begin with Michigan, the most segmented state, and conclude with Illinois, a federal model

The authors characterize the system designs in the seven states as *segmented, unified,* or *federal* *Federal* systems (Illinois, Texas) are those with institutional and multicampus system governing boards, and a coordinating board with both responsibility for all higher education and substantial authority for major work processes *Unified* systems (Georgia) are those in which a single governing board is responsible for all degree-granting, public institutions *Segmented* systems (California, Florida, Michigan, and New York) are those that have a planning or coordinating agency with some authority for the work processes but also have two or more governing boards of multicampus subsystems in which the board or its chief executive negotiates budgets directly with elected officials

The case studies presented in Chapters 2 through 8 illustrate how state systems differ in the way they link institutions to one another and to state government and the way they use the four key work processes identified by this study information management, budgeting, program planning, and articulation Each chapter begins with an extensive discussion of the state's higher education system to highlight historical, political, economic, demographic, and geographic factors that contribute to the state policy environment

Following the individual state chapters, Chapter 9 reports differences in performance observed across the states The assessment of system performance takes into account not only available quantitative indicators but also the judgments of policy makers both inside and outside the academy

That performance does not seem to be related to the system design is perhaps the most revealing finding in this chapter Moreover, there is no evidence in the data that (1) one type of system necessarily has a lower cost per student than another type or that (2) some governance structures attract stronger leaders than others However, leadership and system type do seem related For example, some leadership styles seem to work better in some types of structures, and leadership change seems to affect some structures (unified systems in particular) more than others

The last chapter examines the policy implications of the research findings First, to discuss the role public policy has played in meeting past challenges, the authors describe six challenges facing higher education higher education and social stratification, increasing enrollment demand, pressures of cost containment, erosion of consensus on financial support, growing concerns about quality, and the powerful but unpredictable impact of electronic technologies Then they suggest that states can improve their responses to impending challenges through policy analysis performed at three levels the macropolicy level, the system design level, and the operational or work processes level

The concluding pages suggest that differences in governance structures do influence the performance of higher education systems Typically, federal and unified systems are in a better position to identify priorities, shape institutional responses, and use information to communicate progress In contrast, segmented systems lack mechanisms for using several or all of these strategies, unless they exist in the legislative arena Through these case studies, the authors verify Hearn and Griswold's (1994) conclusion that states with central agencies, whether coordinating or governing, are more likely than their segmented counterparts to undertake policy innovations, particularly in academic areas

Parallels to Empirical Research

Those who study higher education governance from an empirical perspective will find worthy to note how recent empirical research in the field is either congruent with or divergent from findings in this qualitative study In this book, none of the leaders interviewed in either setting (heavily regulated or unregulated) expressed significant dissatisfaction with the arrangements under which they worked, perhaps because institutional leaders seek settings that are a reasonable match for their preferences Similarly, the research conducted by Volkwein, Malik, & Napierski-Prancl (1998), for instance, leads to strikingly similar conclusions about the relationship between state regulatory power and satisfaction of institutional administrators The authors found little direct relationship between administrator satisfaction and state regulatory climate Therefore, despite expectations, more regulatory activity does not seem to reduce managerial satisfaction

Also, on most measures of system performance—with the exception of affordability—this study finds no strong link between governance structures and performance Similarly, Volkwein and Malik's (1997) empirical research points to a lack of connection between campus autonomy and measures of university effectiveness

Continuing the parallel to the empirical evidence, however, we find contrasting evidence on the relationship between the degree of state regulation and institutional autonomy Richardson and his colleagues conclude that "these qualitative data do not support conventional wisdom that coordinating and unified governing boards constrain institutional autonomy Institutions in the federal systems seemed freer from regulation than many of their counterparts in more segmented arrangements" (p 184) In contrast, Volkwein's (1987) earlier empirical research shows that in heavily regulated environments, public universities are treated like "state agencies" and have less flexibility in personnel, financial, and academic matters

This study also offers different explanations for what determined the evolution of the current governance structures The data offered in this study suggest that "each [case study system] came to its current governance arrangements partly as a consequence of geography, political culture, and historical accident, but also partly because of the timing of state efforts at system reform" (p 172) However, Volkwein and Malik's (1997) empirical research indicates that, except for the modest influence of state size, control practices in higher education appear not to be embedded in the economic and political structure of the state Further empirical and qualitative studies are needed to clarify these complex relationships

Merits

The book has several merits to recommend it. Its main merit lies in its new approach to the study of higher education governance Previous studies of statewide governance have focused almost exclusively on the impact of coordinating structures on institutional autonomy They have sought the key to the performance of state higher education systems in the distribution of authority between state agencies and higher education institutions and in the character of the leadership provided by professionals at the institutional and system levels. Such an approach implies that performance does not depend on how authority is distributed or how higher education is structured, as long as there is effective leadership In contrast, this book addresses the broader issues, such as whether existing state structures can respond adequately to the economic, social, and technological challenges of the 1990s and the first decades of the twenty-first century Can these structures respond to changing enrollments, particularly to growing numbers of possible applicants from underrepresented groups? Can they respond effectively in what appears to be an unprecedented period of increased demand for state resources?

Two other merits concern the authors' discussion of mutual influence of leadership and structure and the importance of achieving compatibility among structures and policy environments Regarding leadership, the case studies suggest that "leadership matters, but even good leaders should not be expected to achieve consistent results in the presence of a system design that inhibits institutional collaboration and system synergy Leadership can make a system perform better or worse than its structural design, but it cannot compensate for badly designed systems or mismatched policy environments" (p 17) Well-designed systems functioning in compatible policy environments with good leadership tend to perform better than others We find insightful the observation that different system designs attract different kinds of leaders, with entrepreneurial leaders more likely to be drawn to federal systems

That state legislators perceive the usefulness of information management differently across states is another interesting finding Such differences might explain varying levels of sophistication in information management and the use of data Information in Michigan, for instance, is poor, and its institutions oppose any development of a stronger statewide information system As some participants noted, "No one worries about the lack of information because no one would trust its accuracy or use it rationally, even if it were available" (p 37) Similar perceptions were revealed by an earlier case study conducted by Frost, Hearn, & Marine (1997) Analyzing the decision taken by North Carolina's university system to limit out-of-state enrollments to 18%, the authors found that the decision-making processes employed by legislators in this state have been based less on research and more on emotions and untested assumptions

In contrast, in Texas, information is the basis for formula funding, providing data regarding faculty workloads, performance on the Texas Academics Skills Program (TASP) and federal funding criteria. Based on the case studies, the authors note that "the more developed information system a state has, the more predictable and manageable it can be" (p 126)

Some Criticisms

Although this book has few shortcomings, we find the following worth mention First, although the explicit purpose of the book is to analyze how policy environments and system designs influence performance, the reader has to wait until Chapter 9 to see how performance is defined Even at this point, definitions of some measures used to assess system performance seem unclear

Second, the quantitative indicators the authors use to measure performance seem limited in scope While they cover such areas as effectiveness, efficiency, and equity, measures of quality are not included in the cross-system comparisons, even though many would argue that providing quality education under increasing accountability pressures is one major challenge universities will face in the next century Perhaps lack of quantifiable quality measures available at the state level justifies this omission However, the authors' appended note that most of the indicators used in the study include public institutions only seems to amplify the limitation For example, the exclusion of private institutions in these measures distorts the performance of states such as New York and Illinois, which have a substantial private sector both in terms of enrollments and financial support

Third, although the case studies are well written and extremely informative, there appears to be an overemphasis on history and policy environment, little elaboration is given to the leadership dimension despite the fact that it was initially introduced in the conceptual framework It is only tangentially discussed in both the case studies and the cross-cases analysis

Finally, the conclusion that the cost of supporting interface agencies does not make federal or unified systems more expensive than segmented systems is questionable In reaching this conclusion the authors compare only the cost per student (total of state appropriations to the public sector, plus public tuition charges, divided by the number of FTE students in the public sector) However, this measure does not take into account hidden administrative costs associated with both the interface agencies and the work created on campuses by growing reporting responsibilities

Questions to Explore

Two policy questions emerge from this study First, as the new century approaches, does the governance pendulum shift toward centralization or decentralization? Second, what does the study reveal about the evolution of the relationship between private higher education and state systems?

As to the centralization/decentralization balance, the evidence from the case studies does not lead the reader to clear conclusions For example, on the one hand the authors suggest a greater reliance on market forces in the future "The institution-building period benefited from structures and policies that insulated colleges and universities from external forces, and asserted public interest through regulation and centralized structures This research suggests that this institution-building period is closing In contrast to it, the conditions of the early twenty-first century may call for state policies that make greater use of public investment to structure market forces, forces to which institutions, system designs, and work processes will be expected to respond" (p 202) In the case of the budget process, there is more and more decentralization, closely resembling practices used in private universities On the other hand, in the case of accountability, if one looks at the Michigan case as described in the book, one notes that while no accountability legislation exists now, many of those interviewed said that legislators are interested in accountability Other states are likely to experience similar pressures for more accountability reporting, which inevitably brings more centralization at least in the area of information management

The pendulum might be somewhere in the middle, requiring policies and structures that recognize the tension between the state need for better accountability and the interests of institutions and faculty in local management Perhaps future studies can reveal more information about this balance

As administrators in a private research university, we are also interested in how private higher education fits into the discussion of future governance structures The book does an excellent job of describing how private and public sectors coexist across state systems and what factors contribute to the current relationships between them We learn, for instance, that the structural arrangements in Illinois have produced better integration of the private sector and significantly less intersector conflict However, we are left with questions about how the relationship between private education and state systems is likely to evolve in the future For example, what societal changes might influence the relationship between state systems and the private institutions in that state? Are the new accountability requirements creating excellence or just more work for state universities? If the latter is true, are these conditions widening a gap between state and private universities as far as excellence is concerned? If not, where in a public system will issues of excellence be addressed?

Overall, this book is an important addition to the literature on higher education governance Campus administrators and state policymakers concerned with reforming their governance structures and work processes will find *Designing State Higher Education Systems for a New Century* to be a significant information resource, and higher education scholars will find that the volume suggests many complex structural relationships we would do well to explore

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Book Reviews

Education and the Rise of the Global Economy, by
Joel Spring Mahwah, NJ Lawrence Erlbaum, 1998
xii + 234pp $49 95 ($24 95)

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The academy and the popular press are replete with reports and studies of globalization, global capital, and global education Because the meaning and ramifications of globalization are not exactly clear, Joel Spring offers in this book a unique contribution to our understanding of the role education plays in the global economy Whereas much of the literature and debate on globalization accepts the concept as unproblematic, Spring assures us that the globalization of education, in particular, is anything but unproblematic and neutral

The assumption by free market capitalists that the "global economy is a good thing" is a major point of contention for Spring (p 225) He argues that one of the principal problems with human capital theory is that it determines the worth of individuals only by their value in the labor market Under this assumption of human capital theory, Spring explains, dispossessed groups, the elderly, "and other neglected populations are the flotsam and jetsam of the global economy" (p 199) For human capital theorists, therefore, education is an investment in the economy and is valued by its contribution to an individual's worth as measured by income Spring notes that because businesses are driven by profits and capital accumulation, their interests are served by supporting policy that forces "schools to function as part of the economic machinery" (p 149) Educational policymakers, guided by these principles of human capital theory, he further explains, invest in education only when it "will produce positive economic results" (p 171) That education in the global economy has become an economic investment, not a social good or a human right, is a major tenet of Spring's argument

To help the reader understand the historical circumstances for the rise of the global economy, Spring explains that the ideologies of free trade, individualism, economic competition, and democratic republicanism, embodied in the British and American cultures and language, have become the dominant global economic model (p 30) English has become the global language, and the Protestant ethics of hard work and the individual pursuit of wealth have become the cultural hallmarks of the global economy What is commonly referred to as "globalization," however, is regarded by Spring and other critics as a synonym for "Americanization" (Readings, 1996, p 2) As Spring argues "Greed, or the individual pursuit of wealth, is an important factor in the development of European society and a key ingredient in the present global economy" (p 32)

To develop this premise, Spring presents the book in three basic parts Initially, he addresses the effects of globalization in the Asian context by offering case studies of Japan and Singapore In the second part of the book he considers US, UK, European Union, OECD, and World Bank complicity both in creating and maintaining the global economy He closes the book by addressing the role of the UN in attempting to secure universal rights of education, and he questions if the right to an education should include an education in human rights (p 214)

The questions Spring raises in the national case studies are compelling and provide the real strength of his work "Is education for the state or corporation antidemocratic?" "Does education for development of human capital sacrifice individual needs for the employment requirements of corporations?" (p 38) "Should the goal of government be economic growth or should it be human welfare?" (p 226) Beginning with Japan and Singapore, Spring considers what appropriate role the state should play in educating its citizens from an Asian perspective An inherent problem, of course, in attempting to cover an entire country in one chapter is the inability to offer an in-depth treatment Spring does do an admirable job, however, of capturing some of the basic cultural issues in Japan's and Singapore's education and their respective national participation in the global economy

Spring's discussion and comparison between Confucian and Christian perspectives is a basic cultural issue often ignored in comparative economic studies such as this As he explains "The legacy of Confucianism explains the Japanese acceptance of the state as the source of morality [and] can easily be translated into the corporation as the basis for moral life" (p 40) Although the Japanese educational system has been very effective in serving the current needs of Japan, Inc , how functional this system is in the future global context is less certain, especially since the burst of the bubble economy in the early 1990s Spring notes the dissent among Japanese critics over current educational and social policies, but further discussion over the viability of the contemporary school system for the changing economic circumstances of Japan's future would have been valuable

Unfortunately for Spring, the more recent and larger Asian crisis occurred after this book was in production, and we are unable to learn how the trajectory in the rise of the global economy has been mediated by this crisis in Japan and Singapore specifically In his assessment of Singapore, Spring appropriately considers the authoritarian nature of Singapore's leadership and quotes Lee Quan Yew's definition of a moral citizen ("loyal and patriotic clean, neat, punctual and well mannered," p 84) Although Singapore offers a model example of success in the global economy, the cost to maintain this success has been among the most severe in the, supposedly, "free market" economies

In the second major section of the book Spring contrasts the values in Japan and Singapore of "harmony, filial piety and self- sacrifice" to the Western values of individualism and freedom (p 95) He offers an excellent argument for the economic and cultural colonialism by the West, dependent, in part, on the moral imperative of "white love"—the religious justification for the "greed of colonialism" (p 13) Spring's discussion in this second section of the book is quite good and I recommend it highly both for newcomers and veterans to the debate over globalization Spring argues convincingly the effect "the blend of free market economics, Christianity, and nationalism" has had on the global economy (p 129) He also contrasts well the perspectives on unemployment of Lester Thurow (multinational corporations are the cause) and Paul Krugman (technological developments are at fault) Expanding this discussion to include critical works, for example, by Rifkin (1995) and Reich (1991) on the global economy and Readings (1996), Wilshire (1989), and Slaughter and Leslie (1997) on education, among others, would have further assisted Spring in the development of the effects of globalization on the economy and education

Spring's presentation of the role the United States and the United Kingdom, in particular, play in the global economy is excellent This discussion, however, might have been better placed at the beginning of the book because it sets the context for understanding the effect and participation of Singapore and Japan in the global economy Spring's choice of Japan and Singapore as case studies could also have been clarified further Arguably, other countries might have provided better examples to contrast Asian-Western philosophies, developed-developing countries, or dictatorial-democratic governments

Spring devotes the last section of the book to a discussion of the United Nation's role in promoting "Education for All" The difficulties in arriving at a universal agreement on the right to an education are well presented, but I believe the author could have developed his argument further with additional support from the work of Paulo Freire (1970) and the larger body of literature on critical theory, multicultural education, educational equity, and social justice His argument is persuasive here, but he draws on a narrow avenue of support

Spring concludes his analysis by questioning again if a global reliance on human capital theory is the "key to human happiness" and if the "goal of government" should be economic growth or human welfare (p 226) He presents his belief that a multicultural education linked to an education in human rights is "essential for protection and improvement of the global economy" (p 227) Although this solution is well stated, it does not seem explicitly integrated into the larger argument throughout the book A more complete and earlier discussion in support of multicultural education would have strengthened his argument

Overall, this is a fine piece of work that compliments well Spring's other penetrating books into the history of educational policy I was also particularly impressed with his admission on how much his thinking had changed in the research and writing of this book Spring calls his earlier proposal to abolish government-operated schools as "naive in the face of the uncontrolled power of global corporations" (p xi) Perhaps one of the most valuable lessons he presents for us here is that we all must continually reassess our understanding of the social, political, and cultural world Globalization is a contemporary ideology that must be questioned, as Spring does so well in this book "Does economic prosperity result in social justice and morality?" "Does competition of the marketplace result in a moral and just society?" (p 168) As Currie (1998) reminds us, we should understand, as well, that globalization is not uniform, it is not unproblematically beneficial, and it is not inevitable (p 2) Ultimately, Spring helps us understand that we should question the benefits and disadvantages of globalization, seek possible alternatives to the ideology of globalization, and realize that globalization is not a neutral and inevitable economic and educational outcome

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Electronic Literacies Language, Culture, and Power
In Online Education, by Mark Warshauer Mahwah, NJ
Lawrence Erlbaum Associates, 1999 187+ pp $49 95 ($24 95)

BRAD CAHOON, University of Georgia

The effects of the Internet on language and culture are subjects of intense speculation Many have argued that the emergence of global computer networks marks a new era of human literacy, corresponding in magnitude to the transitions from orality to writing and from writing to printing Others see in it evidence of a cultural decline in which immersion in a seamless web of media is replacing the discipline and deliberation associated with linear text Opinion is similarly divided on the social effects of the Internet Its advocates view it as the first truly democratic mass medium, allowing an almost unimaginable diversity of voices and views to achieve public expression, its critics argue that it privileges affluent and English-speaking societies and tends to marginalize developing countries and traditional cultures These conflicting views will be resolved, if at all, only through careful research, analysis, and reflection Thus a study like Mark Warshauer's *Electronic Literacies* is both timely and much needed

The research presented in this book, conducted between 1996 and 1997, attempts to illuminate the changing nature of reading and writing through a comparative case study of four computer-based classes an undergraduate English as a second language (ESL) class at a small Christian college, a graduate ESL class at the University of Hawai'i, an undergraduate Hawai'ian language class at the same institution, and an English composition class at a community college Each class used personal computers, the Internet, and the World-Wide Web, with varying degrees of effectiveness, as tools for developing language and writing skills Based on participant observation and interviews, Warshauer presents a vivid description of how these students and teachers experienced the interaction of Internet technologies, cultural forces, and academic goals

Chapter 1 provides historical and theoretical background on the relationship between technologies and literacies (Warshauer uses the plural form to emphasize that "literacy" has different meanings in different social contexts) Concise but helpful sections on computer-mediated communications, hypermedia, and the Web survey the current state of the technology Warshauer compares the views of technology advocates such as Jay David Bolter and George Landow with the more pessimistic perspectives of Sven Birkerts, Neil Postman, and Stephen Talbott and discerns some common ground in their emphasis on the transformation of perspectives "Electronic literacy involves not only adapting our eyes to read from the screen instead of the page but also adapting our vision of the nature of literacy and the purposes of reading and writing" (p 13)

In Chapters 2 through 5, the author sets the stage for each case by describing his initial contacts with the teachers and his role in each class (an appendix provides a detailed description of research methods) Accounts of class discussions and activities, lively portraits of individuals, and quotations from interviews, student papers, e-mail, Web pages, and chat sessions convey the unique qualities of each class The descriptive part of each chapter is followed by an interpretive section in which the themes of socialization, critical reflection, resistance, and the social construction of knowledge are recurrent

By comparing the classes, Warshauer shows how institutional cultures and the beliefs and goals of individual teachers shape the forms of electronic literacy students develop In the ESL class at the Christian college, where the instructor relied on a heavy load of highly-structured assignments, the initial excitement of the students about their use of networked computers turned to frustration and boredom as they struggled to complete work that required little creativity or interaction with others In contrast, an ESL class for graduate students at the University of Hawai'i relied on e-mail, listservs, chat, and the Web as means to allow the students to explore and participate in the communities of discourse of their academic disciplines Transcripts of classroom discussions are juxtaposed with transcripts of computer-based discussions to reveal how the latter tended to engage more students and to shift the role of the instructor from lecturer to facilitator

Chapter 4, "Computer-Assisted Language Revitalization," is the most interesting of the cases Warshauer ably summarizes the political and social context of a writing-intensive class in the Hawai'ian language and shows how an assignment to create Web pages based on research projects in indigenous culture produced an unexpectedly high level of student effort and achievement Students found the multimedia capabilities of the Web uniquely suited to communicating the concepts and practices of a traditionally oral culture, and the knowledge that their work would help represent Hawai'ian culture on the Internet proved to be powerfully motivating Chapter 5, describing a technical writing class that emphasized service learning projects, portrays similar uses of software tools but suggests that students' motivation depends heavily on their perception of the utility and authenticity of such projects

Chapter 6 draws together insights from the cases and related literature to critique the effectiveness of computer-based writing instruction and to identify its unique strengths and weaknesses Its success, the author suggests, rests on a recognition of a plurality of literacies "Students must understand how communication varies across media and how different grammars combine to express meaning They have to learn the types of genres and rhetorical structures that are used in particular media, and they have to learn enough about cultural and dialectical differences to choose the right communication strategies for the particular audiences that they are likely to encounter in a new medium" (p 162)

Electronic Literacies is a valuable contribution to research on teaching and learning with technology, in large part because Wauschauer resists either utopian or dystopian extremes, instead he patiently reveals the contradictions inherent in the combination of traditional academic approaches with new media The book will be of special interest to graduate students and faculty interested in the design and presentation of qualitative research, who will find in Warshauer's data collection and analysis methods much that is worthy of imitation Taken together, the cases and their analysis also provide a useful resource for instructors of technology-based classes who want to profit from the hard-won experiences of the teachers described here It is unfortunate that the book is marred by an unusually large number of typographic and editorial errors, especially in Chapter 6, but it remains a worthy addition to any collection of works on ESL, writing instruction, or the use of the Internet in higher education

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The Innovative Campus Nurturing the Distinctive
Learning Environment, by Joy Rosenzweig Kliewer
ACE/Oryx, 1999 344 pp $34 95

JOHN H SCHUH, Iowa State University

In an effort to "capture the stories of the institutional lives and histories of innovative colleges and universities and to understand how and why distinctive institutions of higher education keep alive and/or transform their original pioneering visions or dreams" (p xvii), Joy Rosenzweig Kliewer conducted a qualitative study of six institutions of higher education that grew out of the educational reform movement of the 1960s Her report is contained in this volume, in which she expressed the hope that student-centered venues for knowledge and consciousness raising would be preserved and revitalized (p xxxi)

Kliewer selected six institutions to study after conducting an extensive literature review and consulting with a panel of experts Pitzer and Hampshire Colleges, The Evergreen State College, New College of the University of South Florida, the University of Wisconsin-Green Bay, and the University of California-Santa Cruz emerged as the set that were studied Kliewer visited each institution for four to five days and interviewed a total of 164 individuals at these campuses, primarily faculty, administrators, and graduates, although three trustees and 15 students also were interviewed She also reviewed a variety of documents at each institution and observed campus programs and events

The chapters of the book that reported the author's findings at the individual institutions were organized similarly, which made for easy reading Each chapter began with background information about the institution, a brief description of the organization of the chapter, and a profile of interviewer participants Then Kliewer identified the early, distinctive ideals of the institution and analyzed the extent to which these ideals endured or were transformed Issues and challenges to innovation were noted, followed by a summary of the implications of the campus to sustaining this type of institution

The first stop on the author's tour was Pitzer College, a member of the Claremont Colleges in California Pitzer College opened in 1964 as a women's college with an emphasis on the social sciences and began admitting men in 1970 The author concluded that the heritage of Pitzer (a small, participatory, student-centered community, featuring interdisciplinary education and creative, nourishing academic pursuits) lives on the contemporary Pitzer campus

Next was the author's visit to New College of the University of South Florida, which opened in 1964 in Sarasota, Florida An important event in the history of New College was its merger with the University of South Florida (USF), a consequence of economic problems that were facing the College The academic program of New College remained separate from that of USF, but the College has had to provide the difference in the cost of operations between what the state provides and what the college requires This difference has been underwritten by the New College Foundation, approximately $1,400 in current dollars per student per year (p 74) The Foundation has been a crucial factor in the viability of New College

Hampshire College in western Massachusetts opened its doors to 251 students in 1970 A member of the Five College Consortium, the College features student-directed education, egalitarianism, faculty freedom, and creativity in undergraduate teaching Hampshire does not have departments and disciplinary majors First among the keys to its viability has been the association with the Five College Consortium, similar to Pitzer's relationship with the other colleges in the Claremont group

Moving west and north to Wisconsin, we learn the story of the University of Wisconsin-Green Bay (UWGB), which opened in 1969 UWGB was founded to embrace many of the same concepts of the other institutions student-centeredness, an emphasis on undergraduate teaching, and a personalized approach to higher education UWGB also emphasized community service and experiential learning, two features that are important aspects of higher education today (Jacoby & Associates, 1996) UWGB survives today because of its flexibility and adaptability, strong community support, and its status as a public institution

Returning to the West, the next institution studied is the University of California, Santa Cruz (UCSC), founded in 1965 in the Oxford-Cambridge tradition of residential colleges The ideals of the university in 1965 were nearly identical to those of the other institutions included in this study interdisciplinary education, faculty freedom with an emphasis on undergraduate education, student-centered education, and a closely knit community UCSC's history and experiences are quite similar to those of UWGB in that it has had to contend with economic downturns and the challenges of being part of a public university system Still, the author concludes that UCSC has "carried on with new visions, new dreams" (p 123)

The final institution studied was The Evergreen State College (TESC), which opened in Olympia, Washington, in 1971 [1] The themes of the other institutions are repeated here student-centeredness, experiential learning, emphasis on undergraduate education, and an interdisciplinary approach to teaching and learning TESC experienced many of the challenges faced by other public institutions but, according to Kliewer, has endured as a result of its later start-up date, an autonomous board of trustees, and strong leadership.

Kliewer asserts that this is the first publication of its type, a qualitative and historical analysis of innovative colleges that developed out of the 1960s (Kliewer, personal communication, February 16, 1999). She is correct. Other publications have focused on distinctive colleges (e.g., Clark, 1970), campus life (e.g., Horowitz, 1987), and student cultures (e.g., Kuh, Schuh, Whitt, & Associates, 1991) but hers is the first publication that has attempted to analyze the factors and conditions that have shaped a group of innovative institutions over a period of approximately twenty-five years. The author's cross-site approach to data collection yielded a rich depth of analysis, and the cross-site patterns she identified lent credibility to her conclusions. This kind of study can be especially complex, particularly for a person who undertakes the project individually rather than as part of a team. Nevertheless, the superb level of analysis provided in this book reflects the author's strong conceptual skills, excellent application of qualitative methodology, and commitment to understanding this kind of institution.

Whether or not the nature of education offered by these institutions is contemporary is an issue worthy of debate. Societal conditions are different at the turn of the century than they were during the 1960s, and one could make the case that this approach to higher education is anachronistic. More than ever, access to institutions for members of historically underrepresented groups is of great concern to the higher education community (Bowen & Bok, 1998), and these institutions, for the most part, tended to serve a more privileged student body. Whether or not expending the energy and resources that the kind of education provided by many of these institutions is appropriate is the stuff over which debates rage, particularly because many of the featured institutions provide something of an elite brand of education that may be out of the reach of first generation, historically underrepresented students.

In contemporary higher education, founding an institution of higher education with the properties described and analyzed in this book is rare. More likely we are to find institutions that use technology as an organizing principle. Nevertheless, this publication may have special value for those faculty and others who desire to develop intensive educational experiences for students at existing institutions, experiences that depart from the norm, such as are found in residential colleges or living learning centers. The factors Kliewer identified at many of the sites, such as student-centeredness, egalitarianism, high quality teaching, and interdisciplinary experiential learning, very easily could be used as building blocks for these units.

It is tempting to make suggestions about how a study could have been conducted differently and perhaps improved. This is especially true for a complex, multi-site, qualitative study. In the case of *Innovative Colleges*, this temptation needs to be resisted, for Kliewer has developed an insightful publication that reaches its ambitious goals.

Note

[1] TESC also has a campus in Tacoma, Washington, which was not a focus of this study.

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Public and Private Financing of Higher Education Shaping Public Policy for the Future, edited by Patrick M Callan and Joni E Finney with Kathy Reeves Bracco & William R Doyle Phoenix ACE/Oryx Press, 1997 246 pp $39 95

ANNETTE GIBBS, The University of Virginia

Anyone concerned with American higher education knows that its funding from both state appropriations and federal government sources has shifted rather dramatically during recent years The editors of this volume document a shift of responsibility away from government sources to students, or their families, and institutions, a switch from grants to loans as the dominant type of student financial aid, and a growing dependence on allocating tuition fees as a source of student financial aid They and their colleagues focus on these issues and their implications for public educational policy The first part of the book presents national trends in the public and private financing of colleges and universities, and the second section offers individual case studies of how five states currently finance higher education California, Florida, Michigan, Minnesota, and New York

Brian M Roherty, in Chapter 1, examines how the states have supported their respective systems of higher education in comparison to their elementary and secondary education programs, Medicaid, corrections, and transportation He discusses demographic variables from changes in numbers of high-school graduates to economic growth variables His data support his conclusion that the past tradition of defining the academy from within will be replaced by outside social, political, and economic forces that will define higher education's future

In Chapter 2, David W Breneman and Joni E Finney describe the major changes in public finance at the state level during the first half of the 1990s decade and present eleven of the most significant findings from the five states that provide the case studies depicted in Part 2 of the book These findings include the increasing tuition discounting in private colleges and universities, the first time occurrence in 1994 whereby dollars paid by students and their families surpassed state appropriations to colleges and universities, and the discovery that not only more students are having to borrow money to attend college, but they are also having to borrow more money.

Breneman and Finney conclude with an instructive discussion of needed state policy responses, particularly guidelines for establishing priorities as policymakers accommodate the efforts of "the general shift from state to private support" of public higher education (p. 53).

Robert Zemsky and Gregory R. Wegner, in Chapter 3, report the deliberations of the National Roundtable on the Public and Private Finance of Higher Education, a meeting of state governmental and higher education leaders whose goal was to discern the policy agenda facing the nation and the states. Clear consensus conveyed that higher education's changing circumstances now require changed priorities. As an illustration, "Who pays? Who benefits? Who should pay?" needs to be re-asked. The new questions are, "What should be subsidized? From what sources? For what purpose?" The writers document unequivocally that basic questions of ends, as well as means, must dictate future policy.

Chapter 4, by Mario C. Martinez and Thad Nodine, constitutes the case study of California and its rather dramatic economic downturn, which hit most states during the first half of the 1990s. Higher education in California received the first and deepest cuts in state general fund allocations when compared to other state funding categories. Five to six years later, the state is at a crossroads, and the authors concluded that several years will be required to determine whether short-term attempts to amend funding levels will give way to needed long-term strategic considerations if the states' colleges and universities are to assure their status as some of the top providers of American higher education.

Yolanda Sanchez-Penley, Mario C. Martinez, and Thad Nodine describe Florida and its higher education status in Chapter 5. Like California, Florida also witnessed an economic decline from 1990 to 1995, but Florida's public colleges and universities consistently enrolled more students each year. Increases in tuition rates remained moderate, and a new university was in process. Even so, the future is unclear about whether Florida's forthcoming high- school graduates will have sufficient opportunities to enroll in the state's higher education institutions because the state's narrow tax base and its expected increase in high-school graduates will place even more stress on available higher education programs.

Chapter 6, also by Martinez and Nodine, focuses on Michigan and the primary fiscal issues affecting that state's system of higher education from 1990 to 1995. The period was one of slow economic growth for the state and, in fact, when compared to most other states, Michigan colleges and universities fared well in terms of state funding. Tuition, however, also increased significantly, and two of the primary resulting issues regarding higher education concern affordability and access. The Michigan legislature has provided incentives to keep tuition levels down, but the authors found that these efforts have not been particularly successful.

Joan E. Sundquist, in Chapter 7, describes Minnesota's period of uncertainty amid constrained resources during the first half of the 1990s. The fluctuations in the state economy and the shifting budget priorities have signaled the need for major reform in the state's funding of higher education. The author saw no evidence that the state's system of colleges and universities can or will reinvent itself in order to achieve any significant improvements in the cost structure Thus, continued flat funding will result in tuition increases, which could trigger some erosion in both access to and the quality of public higher education in Minnesota

New York provides the final state's case study, in Chapter 8, by Kathy Reeves Bracco and Yolanda Sanchez- Penley The state's 1990–1995 era was characterized by a slow economic recovery and a changing political environment, which, in turn, led to some significant shifts in the financing of higher education in New York The authors describe a stagnant or declining state funding that was offset by increases in tuition in the public sector This resulted in a percentage increase in the state's Tuition Assistance Program (TAP) going to students at public rather than independent institutions and in a shift from direct state support to the public institutions to increased state funding of students Because 40% of New York's students typically enroll in its independent colleges and universities, the fiscal challenges immediately become obvious Like the other four states, the New York legislature has mandated efficiency and productivity measures in the public systems of higher education

The five states' higher education financing structures, as depicted in Part 2 of this volume, provide considerable insight, because all the authors focus on each state's political environment, governance, demographics, state funding, and student financial aid There are many lessons to be learned, and this volume and its case studies provide an excellent base for building on the past to move toward a future with fewer mistakes Perhaps the primary uncertainty is whether state governments and their higher education leadership can work together to achieve consensus on *where* higher education should be and *how* it will arrive at that destination The chapter authors provide the background data documenting the necessity for "bringing to the table" college leaders and government leaders to make these determinations The destiny of both public and private higher education depends, in large part, upon this *combined* leadership! This particular volume, therefore, is highly recommended reading and study by all who are concerned with the future of the nation's colleges and universities

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The Department Chair as Academic Leader, by Irene W D Hecht, Mary Lou Higgerson, Walter H Gmelch, and Allan Tucker Phoenix, AZ The Oryx Press, 1998 275+ pp $39 95

ALAN T SEAGREN, University of Nebraska -Lincoln

The content of this book builds and expands upon the content of the first edition of Tucker's (1981) *Chairing the Academic Department Leadership Among Peers* In this volume, Hecht, Higgerson, Gmelch, and Tucker have captured and explained the expanding nature of chairing an academic department that has undergone significant changes during the past two decades All four authors have had extensive experience as academic leaders, and therefore the book is written from the perspective of a person who has been there and who has had to cope with the complexities of chairing a department The orientation is toward a leader who must consider not only the internal departmental factors but be equally concerned about the institution's orientation as well as external factors that impinge upon the entire organization This is one important difference from Tucker's (1981) earlier book, which viewed the Chair as the first among peers In this volume, the position of department Chair is analyzed from four broad perspectives

In Part 1 the Chair's roles and responsibilities are viewed from three vantage points past, present, and future The authors explain how the chairperson's role has expanded and responsibilities have increased as a result of the dramatic changes within institutions of higher education The underlying theme is that a Chair no longer is merely a leader within a department but must assume (albeit tacitly) a leadership role at the institutional level and beyond

In Part 2 the authors discuss the complexities of dealing with the human beings who are associated with a department full- and part-time faculty, students, and departmental staff The range of tasks covers the spectrum from recruitment to work loads, course scheduling, evaluation, and professional development for faculty and staff The authors state that a Chair has the major responsibility for establishing the culture within a department but that he or she must lead through the other people within the department

In Part 3 the operation of the department is described in great detail The authors especially emphasize the importance of a Chair's ability to create a culture in which the members of a department can function effectively and efficiently by fostering team work and providing for collective dialogue, inquiry, and practice They offer some specific suggestions for establishing and utilizing teams The final two sections provide insights into the strategies for resource management and the importance of visioning and strategic planning

In the last major part of the book (Part 4) the authors describe the relationship between a department and the university in which it is located Chairs play a vital role in bridging the chasm that often exists between the administration and the faculty Building an effective relationship with a dean is crucial for any Chair, as is knowledge about a range of legal issues that previously did not exist or were handled by the institution's general counsel A significant change is the shift in emphasis from the concerns of the faculty as individuals to a focus on collective accomplishments Performance and accountability are the bywords of the day, and departments must be receptive to evaluation of both individuals and groups The final section of this part relates to the expanded responsibilities of a Chair with regard to external audiences within and beyond the institution, dealing with accreditation issues, and working toward collaboration among entities

The book's greatest strength is its potential for improving practice It was written by practitioners from a practitioner's point of view In contrast to some other works on the departmental Chair, e g Creswell (1990), Gmelch & Miskin (1993), Higgerson (1996), and Lucas (1994), this book was not data based, and therefore its contribution to theoretical constructs is limited Having made that statement, it needs to be said that the book has great potential value for improving the quality of the practice in academic departments In addition, it provides a framework or foundation upon which specific research projects can be designed to test the validity of concepts discussed in different institutional settings and contexts

This book is much more comprehensive than some other works, which have tended to focus on specific aspects of chairing an academic department A significant contribution is made to the academy by updating and expanding the earlier work of Tucker (1981) The contribution to improving practice is only limited by time and the number of individuals (current and prospective Chairs and deans) who will take the time and effort to read, study, and reflect on the implications of the content

The Department Chair as Academic Leader is useful for a number of different audiences First, both experienced and prospective Chairs, faculty members, deans, and vice chancellors or presidents should find it helpful in analyzing current institutional practices It will also be a valuable resource for graduate students in the field of educational leadership in higher education who are interested in understanding how departments and universities function Because of its comprehensive coverage, it might well become the standard reference of a department Chair as an academic leader Every individual who currently holds the position of Chair or who desires to attain such a position should read, study, and reflect on how his or her performance measures up to the practices described by the authors Chairs should conduct inquiry into how the culture of the department might be improved from the perspective of individual and collective faculty, students, and staff, how the department operations might become more effective and efficient, and finally how the relationships with upper administration and external audiences might be enhanced

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John R. Thelin

Good Sports?

Historical Perspective on the Political Economy of Intercollegiate Athletics in the Era of Title IX, 1972–1997

On April 21, 1997 the United States Supreme Court refused to hear the case of Brown University versus Cohen, thus upholding a lower court decision to require the university to adhere to strict criteria for demonstrating gender equity in intercollegiate athletics Media coverage described this as a "landmark victory " for women's athletic programs that would fulfill compliance with 1972 Title IX legislation (Brady, 1997, Farrell, 1997, Mauro, 1997; Naughton 1997a, 1997b). In contrast, many higher education associations objected that the court's interpretation of Title IX was unreasonable to colleges and universities in two respects first, requisite new funding for women's varsity sports would strain athletics department budgets, second, the court's ruling relied on compliance with statistical tests that imposed "insurmountable burdens on colleges and universities" and might "lead to the very discrimination that Title IX prohibits" (*Brief of Amici Curiae*, 1996) Such complaints raised a troubling question· in matters of athletics and public policy, were colleges behaving like "poor losers" rather than "good sports"?

That the higher education community of One DuPont Circle was worried by the Supreme Court's ruling came as little surprise Brown University's intercollegiate athletic program represented a "best case" scenario to demonstrate commitment to women's athletics (Boucher, 1997, Szanton, 1993). If Brown were found to be out of compliance with Title IX tests, then most institutions in the National Collegiate Athletics Association's Division I probably would be vulnerable to sanctions. In-

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deed, a study released by the NCAA shortly after the *Brown v Cohen* ruling concluded that it would be "at least a decade" before most colleges would achieve equity in funding for women's sports (Associated Press, 1997b).

Despite such grim data and projections, a key point in the higher education association's *amicus curiae* brief was their claim that they supported Title IX in principle and merely disagreed with the specific tests and criteria. To examine their intriguing assertion, this study uses a historical lens, whereas most of the commentary on this case predictably has dealt with the *legal* specifics of the Brown situation Adding this historical perspective to the legal debate is essential because over the long run, one must look beyond Brown to take into account trends and developments across the national college and university landscape Here, the focus shifts to a related but distinct and understudied aspect namely, the *economics* and *politics* of college sports in the quarter century since Congress passed Title IX As such, it tests out some theoretical bases for understanding the general organizational behavior of higher education institutions. First, it allows one to revisit the traditional adage that universities tend to be liberal in matters of policy advocacy for society at large, yet conservative in their own practices and behaviors (Kerr, 1963, pp 34 94–95, 105) And second, it provides a good case study to examine the contention from college and university presidents that their institutions since 1980 have been subjected to excessive, unreasonable federal regulation (Bok, 1980)

Research Questions

This study responds directly to two objections raised by numerous higher education associations in the aftermath of the Supreme Court ruling First, "Since passage of Title IX in 1972 have varsity sports programs for women been a primary cause of financial strains and deficits in the operation of intercollegiate athletics programs at NCAA Division I institutions?" Second, "Have colleges and universities over the past twenty-five years demonstrated voluntary compliance in data collection and self-regulation dealing with gender equity and sports to show that strict federal guidelines are an unreasonable and unnecessary intrusion on the tradition of college and university self-determination?"

There are historical data that cast reasonable doubt on the policy claims of the higher education associations. First, the financial problems allegedly facing NCAA Division I intercollegiate athletics programs in the 1990s were the logical product of conscious decisions made by athletic directors, coaches, university presidents, and trustees starting in the early 1970s. Therefore, it is plausible to consider that the projections about the inability of intercollegiate athletic programs to be financially self-supporting were due not primarily to the added expenses of women's varsity teams required for compliance with Title IX One might also consider that the financial strains may have been fostered first and in large part to predictably risky and expensive programs, which since 1970 or thereabouts have edged Division I athletic programs toward annual operating deficits. Second, although college and university officials invoke a tradition of voluntary association and self-regulation, their historical record of providing data and resources essential to cultivating a gender equitable intercollegiate athletics programs has been erratic and reluctant for many years, so as to diminish confidence in that effort

Important to note is that a number of universities offering NCAA Division I athletics programs have demonstrated through their own initiative and efforts a commendable record in accommodating and supporting women's sports programs Most conspicuous, for example, are the University of Kansas, University of Massachusetts at Amherst, and the Ivy Group members, especially Dartmouth The dilemma, then, is, "Do the exceptions make the rule?" The fact that it is "news" when a relatively small number of major universities attain equity in women's sports programs tends to reinforce the hypothesis that it is still a rare phenomenon So, the exceptional few warrant applause—but they should hardly be mistaken as the norm.

The Historical Record. Intercollegiate Athletics Budget Trends Since 1970

Reasonable doubts about the policy claims of dissatisfied higher education officials gain credence after finding examples of widespread, wasteful practices unrelated to women's varsity sports that over time consistently increased the costs of running intercollegiate athletics programs Practices included the following. insistence on large numbers of athletic grants-in-aid for "major" sports and for newly added sports, rejection of athletic aid based on financial need in the NCAA Division IA group, construction and expansion of elaborate athletic facilities; and expansion of highly paid administration and coaching staff for selected sports. These examples were indicative of a syndrome among NCAA Division I athletic programs: expenses had been outpacing revenues for years—often in such alleged "revenue producing sports" as football and men's basketball. As early as the 1970s, when athletic directors in the Southeast Conference were asked to consider projections about budget problems, the overwhelming resolution was not to scrutinize and reduce budgets, but rather to increase fund raising efforts. By 1979 the SEC officials had acknowledged that "inflation and the cost of adding sports to the program were major concerns among Southeastern Conference Athletic Directors Athletic administrators endorsed more plans to increase revenues than reduce expenditures The majority of the directors favored abolishing scholarships in nonrevenue sports, while the majority thrust for increased revenues was in the area of contributions and donations" (Nader, 1988, pp. xi–xiii) The dates are important because in 1979 women's sports were not yet a required part of NCAA Division I programs Enforcement of Title IX guidelines was modest, and when intercollegiate athletic programs were scrutinized, they were seldom subjected to sophisticated financial analyses based on such criteria as parity funding or proportionality.

The situation between 1972 and 1979, then, was characterized in large part by the lack of enforcement for or concern about Title IX. The kinds of tests and criteria that emerged in the late 1970s tended to look at such indices as "number of sports teams for women" and "number of coaches." For many athletic directors the main question was, "Would institutions be required to provide 'football teams for women' if they offered 'football teams for men?'" As for those who sought reform in big-time athletics programs, their discussions, disputes, and demands for redress were fairly silent on "parity funding" and dealt with the most basic gains, i.e , prompting a university simply to offer selected sports teams for women There were cases where the institution did, indeed, add a varsity team for women to parallel an exclusively male provision (e g , hockey) and received congratulations and commendation for that. However, as the women student-athletes noted repeatedly, the two teams faced markedly different funding—the women's team wore motley rag-tag uniforms, did not have the same number or dollar amount of scholarships, and had inferior access to facilities, lockers, and travel.

The articles by sportswriters about unexpected financial strains in college sports in the late 1970s gave little mention of women's sports as a burden In other words, journalists were attributing the problems to cost overruns and revenue shortfalls *within* the men's sports, including football and basketball Newspaper coverage was supplemented by the careful, systematic analysis sponsored by the American Council on Education In that 1980 study, coauthors Robert Atwell, Bruce Grimes, and Donna Lopiano found that the revenue shortfalls and the inability to curb expenses in spectator sports of football and men's basketball were the major problems in intercollegiate athletics Their conclusion included the warning that these existing systemic problems needed prompt attention because athletic directors ought to be prepared for the predictable increasing expenses associated with the foreseeable demand for enhanced women's varsity sports programs (Atwell, Grimes, & Lopiano, 1980)

Hence, nonrevenue men's sports were already subject to departmental budget cuts long before women's programs were incorporated into the new, merged intercollegiate athletic department structure By 1980 numerous Division I universities had dropped established varsity sports—a full year before the NCAA added women's sports to its jurisdiction. For example, the University of Colorado had eliminated men's varsity baseball, swimming, wrestling, and tennis. The University of Washington likewise ended men's programs in gymnastics and wrestling—even though both were consistently ranked among the best teams in the nation (Thelin, 1996, p. 185). In the SEC and other major conferences, by 1980 "tiering" among men's varsity sports had become a familiar practice. One fundamental problem that athletic directors and presidents were reluctant to acknowledge was that sports geared toward spectators had been having an increasingly difficult time being self-supporting (Thelin & Wiseman, 1989).

The Historical Record· The Expenses of Women's Sports Programs

How expensive were women's sports programs in the past—and what has been their relative expense within athletic budgets in recent years? Drawing from a 1978 NCAA survey of college sports revenues and finances, the best estimate is that by 1977 women's varsity sports were about 14% of the total varsity athletics budgets as reported by NCAA "Group A" member institutions (a designation that later would approximate the official "Division I-A" category) (Atwell, Grimes, & Lopiano, 1980, p 49, Raiborn, 1978) And contrary to the image of women's sports as a leech on "real" athletics programs, the NCAA survey indicated that women's programs at the big-time athletic programs in 1977 received about 55% of their funding from sources outside the men's athletic department budget At first glance, the 55% appears to be generous support flowing from the men's programs to women's sports, but it warrants close inspection It is "high" because the dollar total for women's sports was "low"—the average annual budget for a Division I-A women's athletics program in 1977 was $97,000 out of a total athletics budget of $3,003,000 Another important corollary is that men's teams had long benefitted from receiving the proceeds of mandatory student fees (paid by both men and women students) as regular parts of their exclusively men's athletics operating budget. When one looks at the revenue sources in NCAA Divisions I-AA, II, and III in 1977, one finds that the established men's programs contributed less than 20% of the monies to operate women's programs.

Another explanation for the relatively high percentage of funds from Division I-A men's programs that was used to support women's varsity programs in 1977 was that these same institutions had been laggard in their support of women's sports earlier in the decade. For example, in 1973 the NCAA survey data showed that the revenue-producing men's sports program contributed about $9,000 per year to women's varsity sports out of total annual operating budgets of about $2,000,000 To illustrate the relatively small budgets for women's varsity sports in the mid-1970s it is useful to recall an episode from basketball, the premier women's sport In 1976 the University of Kentucky offered the University of Tennessee's coach, Pat Head (later famous by her married name and as coach of several NCAA championship teams, Pat Summit) an annual salary of $9,000 were she to accept the head coaching position for women's basketball at Kentucky This was a "bidding war" of sorts, as Kentucky's offer exceeded her Tennessee salary of $8,900—an increase of $100 Meanwhile, coaches of men's basketball teams at Division I institutions in 1976 were receiving base salaries of about $60,000 to $70,000, not counting income from product endorsements, television shows, and other nonsalary perks.

How has this configuration changed over the past twenty years? In 1996, according to *The Chronicle of Higher Education* and an NCAA study, the proportion spent on women's sports in Division I-A was 16% in 1995 and 18% in 1997 (Rolnick, 1998). In sum, the essence of recent NCAA and federal data is that intercollegiate athletics programs are devoting more dollars to women's athletics than in the past Women's sports show a persistent but slow increase as a percentage of the total varsity athletic budget The most glaring disparities persist in the inordinate monies allocated to recruiting, travel, and coaching salaries for men's major sports

Campus Compliance with Title IX. A Calendar

Although reforming women's college sports programs may have started in the early 1970s, this was largely an initiative external from and ignored by university officials From the point of view of university athletic departments and the NCAA, *their* efforts for equity for women's sports did *not* begin in 1972, when Title IX was passed into law First, they opposed Title IX and testified to Congress against it Second, even when Title IX was passed in 1972 it carried with it two phases that gave colleges and universities a buffer from regulation. From 1972 to 1975 there was no Congressional enforcement or scrutiny, because those three years were devoted to federal agencies drafting guidelines, holding discussions and meetings, and trying to agree on and then publish criteria When guidelines were published in 1975, the federal government gave colleges and universities a *three-year* period in suspense, with institutional reviews being delayed until 1978 at the earliest Women's sports were not incorporated into the NCAA constitution and structure until 1981 Furthermore, at most universities until that NCAA change, women's sports often were a totally separate entity apart from "intercollegiate athletics " Funding sources outside the established men's athletic department often spared the men's teams from the new expenses of women's programs. In some instances (the state of Florida, for example) the state legislature at one time dedicated a special appropriation as "seed money" for the intercollegiate athletics department to integrate women's teams into their program and budget (Palmer, 1981) Furthermore, by the early 1980s, the expenses of salaries and services for women's coaches and teams were relatively small (Lopiano & Zotos, 1991) Even if NCAA had not incorporated women's teams into the NCAA jurisdiction, by the early 1980s "all men" athletic programs still would have faced deficits—and would have considered "tiering" as a reductionist response to existing financial shortfalls

Where Did the Money Go?

An important historical implication is that higher education officials have had a short memory about policies and practices that created some of their financial problems Instead of focusing on Title IX, they would do well to go back to the period preceding the 1972 Title IX legislation. Such a review would indicate some policy changes that surfaced in the late 1960s and peaked in the mid-1970s namely, rising expectations (and budgets) for athletic grants-in-aid for all men's varsity sports. For example, prior to 1967, even at a major flagship Division I institution such as the University of Kentucky, athletic scholarships were restricted to a few sports—namely, to men's basketball, football, baseball, and track. Not only did the University of Kentucky and fellow university athletic programs elsewhere add many new men's sports over the next decade, it increasingly committed to full scholarship funding. By the mid-1970s the nonscholarship athlete in Division I programs was either obsolete or a curious exception—hence the rise of the term a "walk on." The change in university athletics was not lost on high-school students and their parents. For a younger generation of high-school student-athletes in such sports as lacrosse, wrestling, soccer, tennis, swimming, water polo, and golf, the stakes had changed These were no longer regional sports or casual activities Predictably, their new formal status prompted their coaches and advocates to pursue substantial funding and provisions for aggressive recruitment. Why should student-athletes in these sports compete at the highly demanding NCAA Division I level without grants-in-aid at one university if non-need-based aid for their sport was available at another university? The unacknowledged revolution was that student-athletes in a growing number of sports sought to emulate their counterparts in football and basketball. Ambitious and optimistic coaches in a host of nonrevenue sports had helped to escalate men's athletic budgets into a new, expensive orbit whose underlying characteristic was an "arms race" for talent, resources, and facilities Whereas a major university might have had a single coach to handle both varsity swimming and water polo, for example, in the 1980s any institution seeking national recognition in either sport would consider specialization—hiring a full-time coach for each sport Comparable growth and specialization spread over an entire athletics department drove up annual operating expenses The price for such extended aspirations would become evident when the bills for operating a comprehensive, nationally competitive program came due by the late 1970s and early 1980s

If athletic directors were concerned about unbalanced budgets, they might have considered the following patterns and practices to supplement their concern about the unreasonable costs of compliance with Title IX for women's sports The single most important historical finding is that relatively few football programs have generated a surplus of revenues over expenses Even within NCAA Division I-A football programs, numerous football programs lose money There are no data to show that football programs in Division I-AA, II, and III have ever been truly "self-supporting"

In 1995 less than half (46%) of the NCAA Division I-A intercollegiate athletics programs reported revenues that exceeded expenses (Naughton, 1996) In 1997, 29% of the Division I-A *football* programs showed a *deficit* When one looks at Division I-A institutions' total intercollegiate athletics budgets, one finds an average deficit per institution of $437,000 per year If one excludes subsidies from the institution's general funds, this average deficit increases to $823,000 In Division I-AA the average deficit grew to $743,000 with institutional support, and to almost $2-million without it in 1997 (Rolnick, 1998) Cost overruns also have been promoted and legitimized by the culture of coaches, including the following patterns of departmental behavior.

Athletic directors have allowed the practice of "buying out" coaches who do not win championships For example, one university in 1996 paid over $600,000 to "buy out" the salary of a football coach Elsewhere, in the Southeastern Conference, Louisiana State University was expected to pay Vanderbilt University $250,000 for having hired away the Vanderbilt football coach Most recently, in December 1997 the University of Louisville bought up the contract of its football coach for $1 million after taxes, i.e., about $1 6 million

Within the campus community, athletics staff salaries are relatively high In Division I-A football programs, the average salary for an assistant coach in 1996 was over $90,000—and ranged as high as $150,000 Division IA football coaches have repeatedly lobbied against efforts to reform criteria for athletic grants-in-aid at the NCAA conventions This has included opposition to making athletic grants based on financial need, and it has included resistance to reducing the number of football scholarships—proposals denounced by one coach as a "threat to the integrity of the game."

Most Division I football teams continue the practice of having players, coaches, and staff spend the night before a game at a hotel for *home* games Many universities have year-round training tables for football and men's basketball Illustrative of the conspicuous consumption which has characterized Division I spectator sports is the comment by the University of Pittsburgh football coach He told reporters as he guided them on a tour of refurbished locker rooms, "Carpeting floors doesn't win ball games for you, but it sure makes things more comfortable" (*Time*, 1974).

Bowl games, coveted as a way of enhancing athletic department revenues via winning teams, often contribute illusory resources One analysis of the University of Colorado's bowl team showed that its extra revenues of over $3 million were consumed by expenses associated with bowl game preparation and participation In December 1997 athletic department officials at UCLA reported that their football team's participation in the 1998 New Year's Day televised Cotton Bowl would be a "costly trip." This was so because it would require UCLA to spend approximately $150,000 to $200,00 from its general budget after payouts from the Conference and Bowl Game committee (Hodges, 1997b). Ironically, this bad financial news came two days after the UCLA athletic department had been praised in a Los Angeles *Times* article for having parlayed football revenues as a means to balance the entire intercollegiate athletic budget (Hodges, 1997a)

Athletic departments receive numerous benefits from university affiliation, which tend to lower their costs For example, use of state constructed stadiums and facilities at below-market rental rates, convenient use of university parking lots to generate game day revenue, and use of university legal counsel in litigation are kinds of services often understated or excluded from the athletic department's budget Intercollegiate athletic department budgets often mask the disproportionate expenses directed toward the "major" sports of football and men's basketball For example, such staff positions as director of sports information or "strength coach" may be published as a departmentwide expense, in fact, the professional services of such positions need not be distributed evenly or proportionally to all sports

Furthermore, investments in new facilities intended to generate revenues often fail to meet promises or expectations Most conspicuous is the University of North Carolina's "Dean Dome" basketball arena, which was described as a priority of the athletic association, not of the university, during the construction fund raising campaign in the late 1980 Ironically, a decade later this facility has yet to operate in the black and has received added subsidies from the state government

The crucial historical precedent undergirding this review is that one original rationale for construction of large stadiums was that football and basketball were expected to provide funding for *all* varsity sports (Thelin, 1996). Athletic directors in contemporary discussions, however, often have conveniently forgotten this compact According to annual reports from the College Football Association and the National Collegiate Athletic Association, by the early 1990s there was a relatively small (and shrinking) number of big-time football programs that were genuinely "self-supporting" Most incredible in this amnesia about the promised benefits of big-time "revenue sports" is that according to NCAA data, numerous Division I-A football programs rely on institutional subsidies to operate their programs

This finding, along with examination of sample athletic program budgets, shows that expanded athletic department expenses cannot be explained wholly or even primarily by the increased expenses of women's athletics programs Important for contemporary discussions is *historical* context long before women's athletics became part of the NCAA, men's sports programs were showing signs of financial strain And between 1980 and 1985, when women's sports finances were subject to few demands for parity, sports programs at major universities already were having difficulty producing adequate revenues (Associated Press, 1991; Raiborn, 1986; Sanoff, 1990) At the University of Maryland, for example, during the years 1979 to 1981 the *football* program lost $300,000 to $400,000 per year (Jenkins, 1985), and the athletic department was running an annual deficit of $1 million, in part due to a deficit of $150,000 in men's basketball. The reason for such problems was that football gate receipts fell below projections and, in one year, sponsors for a bowl game could not pay Maryland its "guarantee"

Two developments in the early 1980s gave many NCAA Division I athletics programs a temporary reprieve on confronting their mounting budget problems. First, the Supreme Court decision allowing individual universities and their conferences to negotiate television contracts independent of the NCAA opened new commercial markets and revenue sources—at least for the most popular, powerful football and basketball programs. Second, athletic departments utilized a 1984 Supreme Court decision that limited Title IX's application to specific programs within schools that directly received federal funds (as distinguished from entire institutions receiving federal funds) as a rationale to claim exemption for their programs. Neither incident proved to be an enduring solution. By 1990 the bonanza of new television revenues had been absorbed—and at about the same time, court rulings had reversed the program-specific interpretation that had spared intercollegiate athletics programs from Title IX compliance

These kinds of shortfalls in the revenue-producing sports have continued to occur. In October 1997, the athletic director of the University of Illinois requested an increase of $68 00 per student to cover an athletic department deficit. Primary source of the shortfall was that attendance at varsity football games was down, reducing income by $2 million for that sport—and leaving a $1 2 million shortfall for the entire intercollegiate athletics department.

Information, Please!

The Historical Record on Voluntary Data About Intercollegiate Athletics

A truism of modern organizational life is that informed policy analysis gains significance when grounded in sound, comprehensive data An unsavory corollary is that the absence of data may allow an organization to evade systematic review. The first indication that colleges and universities have been reluctant participants in substantial athletics reform is their recurrent, prolonged complaints about mandates that they report data about the character and composition of their varsity sports programs and athletics departments. On the one hand, they protest proposed federal requirements to provide data; on the other hand, they are often casual or secretive in voluntarily releasing information Public access to athletic department budgets and records has been limited. Indeed, in the state of Florida, not until 1981 were intercollegiate athletic department's financial records legally required to be available to the public. In NCAA

Division I institutions, athletics programs often obscure information by claiming that it is not part of the official institutional record because it is in the province of the separately chartered “athletic association ” Furthermore, auxiliary athletic fund raising operations and booster clubs (usually with euphemistic names such as the “University Student Educational Fund”) are often inaccessible not only from the general public but sometimes even from university presidents

Lack of athletic department data historically has knowingly impeded both institutional control and public knowledge of sports programs. Nonetheless, colleges and university presidents, along with their higher education associations, lobbied to oppose congressional bills that proposed federal requirements for filing data on the finances and conduct of college sports programs In 1989 U S Congressional Representative Thomas McMillen (R-Maryland) and U S Senator William Bradley (D-New Jersey) proposed legislation that would have required NCAA Division I institutions to disclose the graduation rates of athletes in comparison with the total student body The President of the American Council on Education, Robert Atwell, showed how academic leaders attempted to support reform initiatives without federal intrusion Atwell’s perspective was significant because he was no stranger to the problems of obtaining sound data He had led the ACE’s inquiries into college sports reform and as coauthor of their 1980 report, *The Money Game*, knew the importance of the data—and the problems analysts faced in acquiring it In his testimony of May 18, 1989, to a subcommittee of the House of Representatives he said

> It may even be desirable to pass legislation along the lines proposed by representatives McMillen and Towns and Senator Bradley I would hope that individual institutions and the NCAA, the latter at its next convention, would, as an act of voluntary self-regulation, carry out the intent of this proposed legislation and thus make its enactment unnecessary The intent of the legislation is commendable, and I would recommend to the ACE Board that it be supported if the NCAA does not enact a similar requirement in January But the fundamental systemic problems with big-time intercollegiate athletics are not susceptible to federal legislation or regulation (Committee on Education and Labor of the House of Representatives, 1989)

Atwell’s testimony essentially argued for an injunction that gave colleges another opportunity to exercise voluntary action rather than be subjected to mandate regulation Meanwhile, during this period of “watchful waiting,” some federal agencies as well as such groups as the National Association of College and University Business Officers (NACUBO) drew upon existing research and literature reviews to analyze the condition of college sports. Their mutual finding was not good news (NACUBO, 1993). Noteworthy in this genre was the U S Department of Education's 1993 report to Congress, *Revenues and Expenditures in Intercollegiate Athletics. The Feasibility of Collecting National Data by Sport* (Alexander, 1993). The department's research staff documented the confused finances and deficits of college sports programs and concluded, "The implications are troublesome That is, if the educational budgets of colleges and universities are covering intercollegiate athletic program deficits, then the academic program suffers–and the academic program is the principal function of colleges and universities " Unfortunately, the research findings were blocked from any possibility of being enacted as policy. Secretary of Education Lamar Alexander, in his 1991 Letter of Transmittal to Congress, seemed to defuse the report, writing, "I believe it is *not advisable* for Congress to require institutions to report information on revenues and expenditures for intercollegiate athletics and athletic departments " Alexander, the former president of the University of Tennessee and a member of the Knight Foundation's Commission on Intercollegiate Athletics, acknowledged that financial integrity in intercollegiate athletics was a serious concern at many institutions Nonetheless, he concluded that the federal data collection effort did not "serve an obvious purpose and would be inappropriate mainly because college sports have little involvement with federal student aid dollars Furthermore, collecting data on revenues and expenditures for intercollegiate athletics which were accurate and comparable would be difficult to achieve, probably requiring the addition of new data elements to the existing Integrated Postsecondary Education Data System (IPEDS)" (Alexander, 1993, pp x–xi).

Atwell and Alexander, respectively, relied on two very different premises to try to keep the federal government out of this activity And by 1995 both arguments collapsed Systematic data collection by athletic directors could hardly be rejected as a new, unfamiliar burden, because intercollegiate athletic departments had a long tradition of compiling and analyzing statistics. Standard practice was to have a full-time "SID" (Sports Information Director), whose staff provided news reporters with voluminous sports statistics The typical Division I football press guide was well over 100 pages long and went on at length about the details of on-the-field performance. However, as one review of sports information concluded, "One can readily look up detailed information about college players ' career scoring records from 1920 or even find the distance of the longest punt or a team's margin of victory in a single game Meanwhile, one searches in vain for substantive data about student-athletes' grade point averages or an athletics program's revenue and expenditures" (Thelin & Wiseman, 1992, p. 6)

Even though athletics departments had long been "drowning in data," it had been confined to data they chose to emphasize So, despite Atwell's plea for voluntarism and Lamar Alexander's concerns about the high expense and limited utility of compulsory information, higher education lobbyists were neither wholly convincing nor successful in keeping the federal government out of intercollegiate athletic data collection. An interesting potential source of statistics has been the reports generated by the Equity in Athletics Disclosure Act of 1995—legislation that went into effect in October 1996 An early analysis of such data by the *Chronicle of Higher Education* observed that collecting compatible, clear information remained problematic (Naughton & Srisavasdi, 1996) Nonetheless, the collection and publication of these data have transformed the policy analysis arena for college sports.

Prior to this Act, reliance on the NCAA members surveys for financial and performance data on intercollegiate athletics was risky. NCAA surveys typically showed an institutional response rate of about 46% to 60% That is both low and inadequate when contrasted with, e.g., the response rate on federal data collection, such as IPEDS or HEGIS The NCAA data were also inadequate because their publication included no sophisticated provisions for scaling, for projections, or for extrapolations. How could they be analyzed as either a comprehensive census or even as indicative of a trend? In their published form they did not allow for institution-by-institution disaggregation. And there was no detailed key to tell readers which NCAA member institutions did fill out survey forms data and which did not An independent analyst had no way to track "outliers" within the NCAA population To make an extreme case about the confusion and problems this caused, consider the following research problem: Did, for example, Notre Dame provide data on revenues? Lack of such an important institution would skew one way or the other the profile of financial data for the whole of higher education athletics

A good illustration of the difference between voluntary data reporting and federal required collection is the contrast between the NCAA response rate and the 1996 federal "Equity in Athletics Disclosure Act" The response rate for the latter among Division I institutions was 98% (306 of 310) (Suggs, 1999, p. A44).

Rethinking Higher Education's Tradition of Autonomy

Requiring colleges to provide statistical information was, of course, only part of the package Compliance ultimately meant that institutions had to amend programs, facilities, staffing patterns, coaching salaries, and athletics grants-in-aid As such, interpretations of Title IX that emerged put the specific issue of gender equity in intercollegiate athletics into the middle of the academic procession of college leaders who marched to the public podium to warn about the need to protect higher education autonomy For example, in 1982 a study group commissioned by the Carnegie Foundation for the Advancement of Teaching (CFAT) prefaced its report on campus governance with the observation, "There remains in the control of higher education an inherent tension Colleges and universities are expected to respond to the needs of society of which they are a part—while being free to carry on, without undue interference, their essential work" (CFAT, 1982) Illustrative of the concerned higher education perspective was Harvard President Derek Bok's influential 1980 article in *The Public Interest,* in which he called for restraint in federal regulation of universities:

> Government intervention may not only narrow diversity, inhibit innovation, and result in costly errors, it can also force universities to spend substantial sums complying with federal regulations At times, these expenditures result from costly renovations to help the handicapped, or to equalize athletic opportunities among men and women, or to alter laboratories to conform to changing safety requirements More often, the burdens take the form of added staff and effort required to fill out forms, compile data, cope with on-site investigations, and meeting the many procedural requirements that follow in the wake of federal laws and regulations (Bok, 1980, p 85)

Federal regulation had veered from being a nuisance to a serious threat to higher education According to Bok, "The cumulative costs of compliance are already running into millions of dollars each year for large universities, and the relative burdens are undoubtedly greater for smaller institutions. In contrast to corporations, universities cannot readily pass along these costs by raising prices to consumers . As a result, we can be reasonably sure that many academic institutions will have to defray the cost of complying with federal regulations by reducing their budgets for teaching and research" (Bok, 1980, p 85) In sum, such measures as Title IX were expensive and excessive–and, were one to believe the higher education establishment, unnecessary

A problem with Bok's argument was that intercollegiate athletics was a weak link in his general chain of reasoning If compliance costs for big-time athletics programs were, indeed, infringing on teaching and research budgets, how is it that Athletic Directors at NCAA Division I programs were repeatedly able to absorb expenses of buying out coaching contracts and other costly traditions noted earlier? The inconsistency of Bok's argument when applied to many NCAA Division I-A athletics programs was that there seemed to be no shortage of "private funds" from boosters and donors for some program expenses, but evidently none available for compliance with the law

On balance, the record since the early 1970s suggests that most colleges affiliated with "big time" (NCAA Division I) had shown marginal credibility in their claims that they can be trusted to undertake voluntary self-regulation so as to approach gender equity and equal opportunity in college sports. In the 1972 congressional hearings on Title IX, the NCAA lobbied against the legislation, and numerous well-known football coaches and athletics directors testified in opposition to having the legislation be applicable to college sports Opposition to federal involvement continued during the next decade, as shown in the case of the Knight Foundation Commission report on the future of intercollegiate athletics In this 1991 report, Congressman Thomas McMillen (R-Maryland) was the sole commission member to make explicit recommendation that there be a role for the federal government in monitoring intercollegiate athletics. He noted, "This report does not address an area of intercollegiate athletics in dire need of investigation: the enforcement process It behooves forces outside of athletics circles, including government entities, to ensure that the NCAA and other intercollegiate athletics associations do not haphazardly enforce their own concept of justice without appropriate consideration of the due process or rights of individuals and institutions" (Knight Foundation, 1991, p 30)

In the March 1992 follow-up report of the Knight Foundation, *A Solid Start. A Report on Reform of Intercollegiate Athletics*, the commission members once again emphasized their aversion to federal involvement. In the section on "Potential Detours" to reform, they noted

> The second [difficulty] lies in legislative efforts at the federal level to impose reform from on high While these efforts maintain pressure for internal reform, they threaten more harm than good One proposal, for example, would impose a federally mandated administrative structure on the NCAA
>
> The NCAA is a private, voluntary association Only the political appeal of intercollegiate athletics makes this voluntary association vulnerable to such a threat We believe this legislation promises bad law More than that, it creates poor precedent for dealing with the private-sector, profit or non-profit (Knight Foundation, 1992, p 8)

Once again, Congressman McMillen asserted his minority opinion on the Knight Foundation Commission, writing, "I cannot agree that the federal government does not have a positive role to play in the reform process . As the 1992 Harris survey demonstrates, a sizable percentage of Americans believe that the federal legislation is necessary to control college sports" (Knight Foundation, 1992, p 8) Although McMillen was at odds with higher education leaders, his perspective did from time to time persist in legislation and litigation, as suggested by the increasing attention given to complaints and lawsuits filed by women as student-athletes in the 1990s And this brings us full circle to the Brown versus Cohen case, filed in 1991 and whose deliberations extended for about seven years.

Conclusion

The *Brown v. Cohen* case was timely not only because it attracted front page headlines in every major newspaper and coverage on national television news broadcasts, but also because it was closely linked to subsequent landmark events. Five weeks after the Supreme Court's announcement, the National Women's Law Center filed a complaint with the U.S Department of Education alleging that twenty-five colleges had violated federal law by awarding female athletes less sports-related aid than their male counterparts (Arace, 1997). Such episodes provided an ironic context for the news coverage of June 17, in which the president of the United States hailed the 25th anniversary of Title IX legislation (Associated Press, 1997a, Chambers, 1997) The Title IX anniversary suggested that its significance for higher education carried beyond the specifics of college sports because it drew into question a fundamental tenet of public policy and institutional practices in American higher education. namely, the commitment of colleges and universities to undertake self-regulation via voluntary association, leading to exemption from strict federal regulation Its implications extended beyond athletic departments to include academic leaders Even though intercollegiate athletics is an extracurricular activity, seemingly far from the essential academic missions of colleges and universities, the topic is both conspicuous and useful for understanding colleges and universities In sum, this study makes two contributions· it shows how a college's athletics policy can tell much about its educational philosophy, and it shows how historical analysis might contribute to public policy deliberations. The legal and financial accountability now asked of intercollegiate athletics departments is indicative of a larger phenomenon: government agencies increasingly view higher education as a "mature industry," whose enterprise is sufficiently large and established so as to expect compliance with data reporting and with laws and regulations (Levine 1997)

Furthermore, this case reinforces the theoretical argument that higher education institutions demonstrate a conspicuous split in their policy advocacy for society at large as distinguished from their own organizational behavior It illuminates the recent finding by sociologist Nathan Glazer that since the early 1900s, the federal government's relations with higher education have switched substantially At the start of the century the government viewed colleges and universities as fragile institutions worthy of federal protection and special exemptions By 1980 colleges and universities were increasingly treated as an enterprise that warranted monitoring and regulation (Glazer, 1979)

A recent incident provides an interesting, bittersweet postscript to the higher education associations' legal brief to illustrate the resistance to government oversight and lack of cooperation that has characterized the higher education establishment. In March 1998, about a year after the Brown vs. Cohen announcement, the National Collegiate Athletic Association argued (unsuccessfully) in Federal Appeals court that it ought not be subject to Title IX laws because it did not receive federal funds directly (Haworth, 1998) The irony is that the umbrella organization relied on by most major colleges and universities to review and certify campus athletic programs according to standards of proper conduct has resisted for itself compliance with Title IX Such is the spirit of voluntary compliance and good faith that has characterized sportsmanship in the higher education establishment in the quarter century history of Title IX. Given this climate and organizational behavior, the upshot is that although in the future intercollegiate basketball contests will be decided on the court, the really interesting contests on equity and opportunity will be decided in court

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F. King Alexander

The Changing Face of Accountability

Monitoring and Assessing Institutional Performance in Higher Education

Introduction

During the last decade dramatic changes have emerged in the way governments interact with colleges and universities. Governmental authorities are no longer as receptive to the traditional self-regulatory processes that have dominated university development for centuries. A new economic motivation is driving states to redefine relationships by pressuring institutions to become more accountable, more efficient, and more productive in the use of publicly generated resources. Earlier attempts by states to measure institutional efficiency and performance have generally been met with passive resistance or benign neglect in academic circles. Although this trend still prevails, an increasing number of educational leaders are now exhibiting an awareness that the status quo is no longer a viable option for higher education. Barnett (1992) points out that our higher education systems have entered "the age of disenchantment" and "society is not prepared to accept that higher education is self-justifying and wishes to expose the activities of the secret garden. With greater expectations being placed on it, higher education is being obliged to examine itself or be examined by others" (p. 16). This observation reflects the increasing societal requirement that colleges and universities must become more responsive to national economic needs and new governmental demands for increased performance.

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As part of the changing relationship between government and higher education, state governments are placing an increasing burden on higher education to play a pivotal role in transforming the existing low-wage economic structures into high-performance, technology-based economies. Governments are increasingly looking to the different sectors of higher education to augment learning skills and improve workers' ability to develop and use technology, thus enhancing productivity and strengthening the state's economic position According to Marshall (1995), former U S. Secretary of Labor, "Education is the crucial element in this transformation process It can no longer be considered apart from the state's overall economic strategies" (p 62). Marshall is inferring that education, and increasingly higher education, has become an essential component of national economic investment strategy In a competitive and global environment, increasing educational investment to produce a highly educated and skilled workforce is a vital element for future economic growth. Without this investment and reliance on education, and especially tertiary education in industrialized societies, the competitive status of a nation will substantially deteriorate in the coming years

This reliance on higher education as a principal economic engine is accented by today's world economy, which is changing national economic and educational needs more rapidly than ever before Higher education increasingly determines a society's evolutionary potential and, in economic terms, affects international competitiveness and choice of industrial location. In nations with comparatively sophisticated higher education systems, governments are adopting new economic and managerial strategies to assess and compare college and university performance Government reporting and funding mechanisms for higher education are in the midst of a major transformation from complete input-based systems to the adaptation of more competitive outcomes-based approaches (Barnett & Bjarnason, 1999, Brennan, 1999, Ewell & Jones, 1994, Gilbert, 1999, Layzell, 1998, Schmidtlein, 1999)

Since the early 1990s, government interest in performance funding and budgeting for higher education has substantially increased in OECD nations (Burke & Serban, 1997, El-Khawas & Massey, 1996, Jongbloed & Koelman, 1996, Layzell, 1998; Peters, 1992, Piper & Issacs, 1992) This transformation has resulted from the realization that to strengthen their competitive positioning, states and nations must increase their involvement in the development of human capital and research through higher education As Marshall (1995) observes, "In this more competitive world, dominated by knowledge-intensive technology, the keys to economic success have become human resources and more effective population systems, not possible new organizations of production, not natural resources and domestic economies of scale" (p 53). For most Western democracies, higher education has become the critical link to future economic success. As *The Economist* (1997) stated, "In such an economy—one in which ideas, and the ability to manipulate them, count for far more than the traditional factors of production—the university has come to look like an increasingly useful asset" (p 4)

To achieve the ends of economic growth, governments resort to many devices that are presumed to create greater efficiencies in the use of public dollars while expanding the reach of higher education Budget reductions and general resource constraints have become commonplace, while institutions are being asked to serve increasing numbers of students and constituencies (Dill & Sporn, 1995, Eicher, 1998) Methods for administering higher education are being transformed, while colleges and universities are being urged to engage in new tasks and assume new responsibilities (Marcus, 1997) The entire nature of the traditional relationship between government and higher education is in the process of significant change in stretching the public dollar to serve more students in attempting to maximize economic returns.

In this new era, governments have adopted public policies advancing the democratic concepts of massification and universality of higher education and have generally rejected the more traditionally restrictive practices grounded in meritocracy and exclusion (Gumport, Iannozzi, Shaman, & Zemsky, 1997; Trow, 1974) The rapid expansion of postsecondary education, in most cases, has proven to be a formidable task for institutional leaders who have not been afforded corresponding levels of public financial resources Coinciding with national pressure to expand higher education services has been the creation and refinement of state evaluation systems devised to monitor and assess institutional effectiveness and productivity (Cowen, 1996). Such government initiatives devised to seek greater efficiencies by employment of evaluative techniques to assess and compare the performance of colleges and universities constitutes the current thrust of the "accountability movement" in higher education. These challenges have resulted in systemic modifications in the management and financing of higher education institutions It is the nature of these developments that provides the impetus for this article.

Accountability Versus Autonomy

As history reminds us, universities have generally experienced difficulty in living up to the expectations of societies at large Controversies over institutional autonomy and government control are as ancient as universities themselves (Ashby, 1966) As Berdahl (1990) observes, universities are inherently in a state of ambivalence with society because they are "both involved and withdrawn, both serving and criticizing, both needing and being needed" (p 170).

So what makes the recent performance-based accountability movement distinct? The accountability movement currently inundating many OECD nations is premised on the perception that traditional measures of institutional performance and effectiveness such as peer review and market choice are not sufficient indicators of institutional value. The conflict encompassing this issue was best defined by the British Committee of Public Accounts (1990), which after an internal review of English public universities expressed concern about the nature of autonomous governance, stating, "We do not accept that their [the universities'] independence and autonomy, although undoubtedly valuable in many respects, is a valid argument against the attempts to defend against the shortcomings in realistic and effective management and control of the public funds on which universities are dependent" (p ix).

Thus, despite unparalleled economic and scientific achievements attributable to higher education during the last three decades, public dissatisfaction with colleges and universities continues to permeate legislative halls The torrent of popular criticism has forced many institutions to reexamine their educational missions and to seek new funding alternatives (Mora & Nugent, 1998, Williams, 1998). These developments place arduous burdens on higher education systems as policymakers attempt to monitor educational quality and performance while insisting on greater accessibility

Front and center at issue is the general allegation by governmental leaders that higher education is simply not responsive to societal and economic demands. State legislators in the United States and members of Parliament in Britain have repeatedly attacked higher education for being locked away in "Ivory Towers" exhibiting only reluctant adaptation to the growing economic demands of the nation and a global economy The disconnect between higher education and the external community has only increased as demand for greater equality through access and economic productivity have received more emphasis (Karabell, 1998) Others have countered that higher education systems have been given little credit for their adaptability and their dramatic evolution As Neave (1995) observes, "For an institution supposedly reputed for its non-adaptability to 'social change,' for its 'non responsiveness' and for its 'resistance to change' in general, the immobility so often ascribed to it by pamphleteers has been remarkably absent these ten years past, so much that we have swung in the opposite extreme and, taking adaptation for granted, dispute not whether the institution is capable of it but the speed at which it takes place" (p 4)

Merely to contend that governmental authorities have turned to the concept of performance-based accountability for the limited purpose of forcing higher education to change the way it conducts business is to oversimplify and minimize the more complex economic and societal developments that have occurred since the mid-1980s During the last fifteen years, two significant fundamental developments have combined to stimulate an increased state-level interest in higher education performance· (1) the "massification" of higher education systems and (2) limitations of public expenditures for higher education

The Effects of Massification

The expansion of the higher education system in Western Europe and other OECD nations during the last fifteen years has been viewed by some as the most significant higher education development of this century Throughout most of Western Europe, the term "massification" is traditionally employed to note the rapid enrollment growth in higher education According to *The Economist* (1997), massification is "the biggest single change in higher education over the past two decades Before long, it will become a normal expectation of every student in rich countries to have access to some form of postsecondary education" (p 5)

The impetus behind governmental interest in moving toward the massification and universality of higher education must be attributed to the aforementioned theory of human capital investment and national economic growth Universities, once portrayed as cultural training grounds for young minds, have become major agents for government investment in human development Global economic advantages are rapidly emerging in nations where widespread educational investments have become national priorities In this environment, higher education is viewed as a vehicle to increase the stock of human capital that enables more effective competition in world markets. Therefore, governments increasingly view higher education as a stakes game too important to leave to the universities themselves or to traditional peer faculty and governance processes that have dominated higher education for generations. As Slaughter and Leslie (1997) observe, "These changes are putting pressure on national higher education policy makers to change the way tertiary education does business" (p 31).

These trends have manifested in the United States in student enrollment increases of over 70% since 1970, resulting in new institutions, centralized governance structures, and widely diverse student bodies

(*Digest of Education Statistics,* 1997) Currently, approximately 68% of high-school graduates enroll in some form of postsecondary education in the year following graduation (Mortenson, 1998) The massification of higher education is obviously a high priority public policy issue as state governments anticipate larger secondary school completion rates and more traditional and adult students who will be seeking postsecondary access in the next ten years This is true at all levels of government In an attempt to bring national attention to the issue of increasing postsecondary education accessibility, President Clinton, during a Commencement Address at Princeton University in 1996, declared, "The clear facts of this time make it imperative that our goal must be nothing less than to make the 13th and 14th years of education as universal to all Americans as the first 12 are today" (*The New York Times, 1996,* p. A1) This statement discloses an acceptance of a basic tenet that the democratic concepts of massification and universality of postsecondary education have become a national economic priority.

Expanding access and the resulting enrollment growth experienced mostly by public sector institutions have compelled governments to give greater scrutiny to the use of public resources Most Western democracies have expanded and opened higher education admissions in what heretofore were largely closed higher education systems. The results of these rising enrollments have been dramatic In Western Europe, student enrollment in higher education has risen by approximately one third since the early 1980s. Some of the most drastic increases have been experienced in Greece, France, and Britain, where enrollments have grown by approximately 70% since 1985 (UNESCO *Statistical Yearbooks,* 1995). What is increasingly apparent to policymakers is that the overwhelming majority of students will continue to take advantage of the accessibility and affordability of governmentally funded institutions The Memorandum on Higher Education delivered by the European Community Commission (1991) very clearly supported this conclusion and pointed out the need for expanded access, stating,

> Projections of enrollments in the past have always tended to underestimate the demand for higher studies among young people The demand is fueled by changing social structures and cultural values as well as by the demands of the labor market for more highly educated manpower As these factors will not only persist but will become more acute in the coming decade, an overall increase in demand for higher education would appear likely This increase should reflect the circumstances of the new decade and show a more even growth in the participation of males and females and a greater expansion in part-time and continuing education students (p 75)

As postsecondary enrollments have substantially grown during the last decade, the composition of the student body also changed Substantial numbers of adult learners above the age of twenty-five are now being found in university classrooms, lecture halls, and qualifying examinations (Karabell, 1998). This is reflective of the growing demand for lifelong learning in OECD nations. Such development also reaffirms the failure of the more elitist higher education systems that excluded many of the current adult learners from participation at a much earlier age.

Limitations of Public Expenditures

As enrollments have continued to increase much faster than policymakers had anticipated, basic tensions have emerged between advocates of massification and proponents of the older, less accessible systems of higher education Many university academicians and administrators were swept along with the new reforms regardless of whether they agreed with or opposed the expanded enrollments. Unlike most government leaders, their primary concerns focused on the limited amount of new public financial resources available and the consequent threat to the maintenance of quality in higher education systems. As *The Economist* states, "The tension between the numbers and quality dominates the debate about higher education in most advanced countries" (p. 4). Administrators and faculty fear that if current fiscal trends persist, colleges and universities will continue to experience larger class sizes, less individual attention and faculty/student interaction, and eventually, reduced academic performance.

Despite acknowledging the possible deleterious effects on educational quality, many governments have opted to maintain current policies by mandating even greater higher education enrollments without corresponding public resources (The National Commission of Inquiry into Higher Education, 1998). During the late 1980s and early 1990s a number of adverse macroeconomic conditions contributed to the international trend to limit public expenditures to higher education. In response to public concerns about other governmental services, policymakers deprioritized higher education in favor of medical care, social welfare, benefits for the elderly, primary and secondary education, and crime prevention[1] (Slaughter & Rhoades, 1996). These changes, when coupled with a general voter backlash against increased taxation, reduced the fiscal capacity of many governments to support colleges and universities with public resources during a period when expanding enrollments became a national priority For example, in the United States, state government funding as a percentage of all revenue sources for higher education fell from 44.9% in 1985, to 38.2% in 1995 (*Digest of Education Statistics*, 1997) As a result of public revenue declines experienced by colleges and universities in the United States, student tuition and fees increased sharply to offset reductions in state appropriations during the 1980s and early 1990s. From 1980 to 1995, tuition and fees as a source of institutional revenue grew from 12.9% to 18.9% at public institutions (Alexander, 1998). To make matters worse, as a rapidly approaching new wave of graduating high-school students demand more access to postsecondary education, pressure to increase current tuition rates to maintain per student expenditure levels will continue at public colleges and universities in the United States.

In some Western European nations during the same period, reductions in per student expenditures for higher education occurred despite moderate increases in public funding for higher education as a share of total educational spending. In Britain, limited tax support for increasing student enrollments resulted in a 22% reduction in public funding per student from 1985 to 1993, and a 40% decrease since 1976 (The National Committee, 1997, pp. 43–46). In other Western European nations per student expenditure as a percentage of the national GDP per capita declined during the same period. Austria, Denmark, France, Germany, Belgium, Norway, Sweden, and Switzerland experienced declines in per student expenditures, forcing many institutions to adopt new managerial strategies (Eicher, 1998).

To complicate this distressing fiscal trend, declines in per student public support for higher education has occurred as college and university costs have increased at rates exceeding inflation. For many political critics of higher education, the lowered place in the queue for public resources derives not only from increased competition from other government services, but from the sense that institutional costs are out of control and massive expenditures are being recklessly used to promote agendas foreign to public interests. Governing officials frequently assert that reducing public funding will not only make institutions more efficient, but more accountable to state demands (Gumport, Iannozzi, Shaman, & Zemsky, 1997).

Unfortunately, many policy decisions to place less emphasis on public funding of higher education has occurred during a period when governments have embraced the concept of massification. According to The World Bank (1996), this development has forced "many public systems to operate with overcrowded and deteriorating physical facilities, inadequate staffing, poor library resources, and insufficient scientific equipment and instructional materials" (p. 2). Faced with these challenges, many OECD governments have followed the U.S. example and begun shifting the funding burden for higher education to the users or students. This funding shift has resulted in wide variations in college and university fees among OECD nations.[2] For policymakers, the issue of student fees remains extremely contentious and politically volatile. By limiting traditional public funding alternatives, colleges and universities have been given no alternative but to seek state authority to charge users and students for the services they receive to ensure educational quality for expanding student populations. In return for growing fiscal reliance on student user fees, governments are demanding more stringent and informative accountability requirements

Measuring Institutional Performance

According to Layzell (1998), the development of performance and outcomes measurements to assess and monitor the effectiveness of colleges and universities "is ultimately based on the desire for greater accountability" (p 104). At the government level, performance-based accountability is implemented by establishing institutional objectives and periodically assessing progression toward these goals. Increasingly, performance-based systems have incorporated fiscal incentives into the new managerial framework, forcing institutions to become more productive in attaining predetermined objectives or risk reductions in annual appropriations Performance-based planning and funding has also become a convenient means for governments to compare and rank the productivity of one institution against the productivity of another League tables, scorecards, national rankings, and report cards are some of the popular devices developed by governing officials to compare institutional performance measurements.

Underlying the ostensible concern for improved public sector performance, outcomes indicators have emerged as an instrumental economic rationality devised to improve institutional efficiency and effectiveness. As Peters (1992) observes, "The call has not been restricted to education, indeed, it has provided major rationale for restructuring the whole public sector, for privatization strategies and the introduction of managerialist techniques and practices" (p. 127) During the last decade, performance-based policies have clearly emerged as the model of choice for resource allocation to public colleges and universities.

The United States

Since the mid-1980s the United States has witnessed a substantial change in its relationship with individual states and higher education. Because federal involvement in postsecondary education is primarily limited to direct student aid, research funding, and specific categoricals, state governments have inherited a leading role in educational reform through policies designed to improve institutional accountability and productivity. Although the relationship varies from state to state, state governments typically provide over 35% of operational funding to public higher education institutions (*Digest of Education Statistics*, 1997) How and where these resources are spent continues to be increasingly scrutinized by legislatures attempting to get more value from existing resources.

Issues dominating higher education policy debates in the United States during the last five years alone have focused on quality measurements, institutional comparisons, outcome assessments, faculty workload reviews, time-to-degree reductions, and reallocation strategies. Van Vught (1994) observes that "the United States was instrumental in starting the movement toward greater accountability" (p 41) In 1978 the State of Tennessee first addressed systemized accountability by establishing a series of performance or incentive funding initiatives that began shaping a portion of the higher education funding structure based on measurable outcomes. The Tennessee system established a performance-based funding method allocating monies to institutions according to predetermined governmentally generated priorities Today, the performance-based funding system continues to be used in Tennessee and constitutes 5.45% of all state operating resources allocated to public universities

As national interest in performance-based accountability has grown, other states have adopted performance funding policies. According to Burke and Serban (1998), 27 states were using some form of performance funding or budgeting system that linked institutional outcome measures to financial resources Of these, 13 states had directly linked institutional performance to annual funding, whereas 21 states had indirectly linked institutional performance to funding through their internal budgetary process (see Table 1). In addition, 8 of these states had adopted both performance funding and budgeting systems linking annual appropriations directly and indirectly to performance-based measurements

TABLE 1

States Using Performance Funding and Budgeting Systems to Finance Higher Education in 1998

Funding System	States
Performance Funding (Direct Link)	Colorado, Connecticut, Florida, Indiana, Illinois, Louisiana, Missouri, Ohio, Oklahoma, Oregon, South Carolina, South Dakota, Tennessee, Washington
Performance Budgeting (Indirect Link)	Colorado, Florida, Georgia, Hawaii, Idaho, Illinois, Indiana, Iowa, Kansas, Louisiana, Maine, Mississippi, Nebraska, North Carolina, Oklahoma, Oregon, Rhode Island, South Dakota, Texas, Washington, West Virginia

SOURCE Calculated from survey data provided by Burke and Serban (1998) and a national survey of state funding formulas for higher education

Like Tennessee, most states using performance funding and budgeting systems in the United States allocate less than 6% of annual operating funding through these mechanisms. South Carolina is the only state to adopt a performance-funding scheme as the primary vehicle for allocating state funding to higher education In 1999 nearly 100% of South Carolina's state operating resources to universities were appropriated by means of performance-based criteria. The South Carolina scheme envisions the use of 37 indicators in 9 distinct performance categories, including mission focus, quality of faculty, quality of instruction, institutional cooperation and collaboration, administrative efficiency, entrance requirements, graduates' achievements, user-friendliness of institution, and research funding

The extraordinary interest in performance-based accountability in the United States has emanated from a taxpayer backlash against increases in public college spending and widespread public concern for improving institutional productivity As McKeown (1996) observes, "Many states are either beginning to use or are considering performance funding, which is a natural outgrowth of the current public demand for the most effective use of tax dollars" (p 6). Although most states have initiated numerous changes aimed at improving the quality of higher education, performance funding is the only budgetary reform to date that directly links financial incentives to achieved results in policy areas states consider important.

Along with performance-based funding initiatives, many states and governing authorities have adopted a series of additional outcomes-based mechanisms devised to provide governments with comparative institutional data. Concerns about faculty productivity emanating from governing authorities and legislatures have led to adjustments in faculty workload policies in more than thirty states (Hauke, 1994, Layzell, 1996) Information related to workload reporting and standards, instructional and research-oriented workloads, and total faculty activities are increasingly being generated and monitored by governing officials. This enhanced governmental interest in workload issues represents an increasing demand for developing comparative institutional data that measure faculty and institutional performance and productivity (Presley & Englebride, 1998).

Another manifestation of the new pursuit of institutional performance is found in growing governmental interest to develop policies that decrease the time it takes students to complete their degrees. Policies related to time-to-degree and faculty per degree ratios are being used in several states, such as Florida, North Carolina, and Indiana, to force institutions to increase the number of students participating in higher education, while creating a corresponding pressure to reduce the time it takes students to complete degrees.

In most instances, states have tended to increase the accountability of their higher education systems by implementing an array of performance measures that attempt to determine what is called “value for resources ” Ewell and Jones (1994) noted four approaches commonly used by states in measuring such value First, value-added measurements to departing students in the form of inputs, processes, and outcomes have been mandated in nearly one half of the states. Second, efficiency measurements to assess resource usage, such as faculty, space, and equipment, have seen widespread adoption by governmental agencies in performance contingent systems Third, return on investment and needs measurements have been used to determine institutional effectiveness and productivity. Fourth, an approach built on the notion of “consumerism” that is designed to measure the impact of higher education in meeting individual and state needs has also been commonly adopted (pp. 12–14)

As most states anticipate enrollment expansion during the next decade, governing authorities and legislatures will remain focused on generating creative ways to measure the productivity and efficiency of public institutions The increased emphasis on performance-based accountability in the United States reflects a growing national interest in identifying measurable outcomes This combined with the growing movement to assess student learning and performance as another dimension of performance-based accountability, may continue to push state governments in the United States to couple formulaic funding levels with institutional and student performance standards.

The United Kingdom

In response to the increased drive for greater accountability and performance, Britain has witnessed unprecedented intervention by the central government into the financial affairs of higher education Partington (1994) refers to this governmental encroachment as a direct “legacy of Thatcherism” and the priorities that were and continue to be part of the conservative Tory philosophy (p 147) Understanding the new performance-funding initiatives requires a brief discussion regarding the course of their implementation.

During the last decade, the relationship between the Parliament and higher education has dramatically changed and no longer resembles the governance and funding structures that were in place until the mid-1980s With the passage of the Education Reform Act of 1988, the initial stages of a power transformation began to evolve. The Act eliminated the University Grants Committee (UGC), once perceived as a buffer or mediating institution between central government control and institutional autonomy The UGC was perceived by the Thatcher governments of the 1980s as a defender of vested interests representing traditional university values (Salter & Tapper, 1994, pp. 199–202) The consequence for representing the traditional higher education establishment against new Tory demands was the replacement of the UGC by the University Funding Council (UFC), which, following its amalgamation with the Polytechnics and Colleges Funding Council (PCFC) in the Further and Higher Education Act of 1992, has been superseded by the Higher Education Funding Councils (HEFCs).[3] The creation of the HEFCs substantially changed the nature of the higher education environment by centralizing state authority over higher education As Salter and Tapper (1994) observe, "After decades of prod and nudge politics, of wait and see, the state has acquired powers which mark a qualitative shift in its relationship with the institutions of higher education. It is now in a position to orchestrate change on a scale and in a manner which knows no precedent" (p. 1)

The mission of the Higher Education Funding Councils was to promote the quality and quantity of learning and research in higher education institutions, cost-effectively and with regard to national needs (Davies, 1995, p. 3) Within two months after their creation, the central government issued a series of guidelines for the HEFCs reaffirming the changing relationship between government and higher education First, the guidelines demanded that Funding Councils develop sectorwide funding methods for allocating resources for teaching and research Second, Funding Councils were to specify clearly what institutions are expected to provide in return for teaching and research while securing greater fiscal efficiencies as student enrollment expanded. Third, Funding Councils were to increase accountability of research funding from sector institutions Finally, the guidelines declared the need for the maintenance and enhancement of quality by relating funding to the Council's performance assessments of teaching and research quality (Davies, 1995, pp 6–10)

By 1993, the HEFC in England (HEFCE), Britain's largest HEFC with 131 institutions, had established several assessments and performance practices as funding allocation tools The first component devised by the HEFCE was a research assessment that directly linked funding to the results and performance of academic units and institutions (El-Khawas & Massey, 1996) This new funding approach removes a sizable amount of funds from a predictable formula basis and gives it a new performance formulaic foundation with external governmental and peer assessors distributing a portion of the funds. This represents a major departure from the competitive federal research funding practices in the United States. Under the new English system the amount of departmental research funding became dependent on a series of performance indicators, including quality publications (to measure output), number of citations (to measure quality of impact), research income, research students, and peer review (Cave, Hanney, Henkel, & Kogan, 1997)

The second component emphasizing academic performance was the quality assessment of teaching and learning effectiveness incorporated in 1993 by the HEFCE These quality assessment procedures directly linked funding to judgments made about academic quality in teaching and learning The current assessment uses an output rating scheme to measure six dimensions of teaching quality (El-Khawas & Massey, 1996)

Each of these policy initiatives represents an important departure from previous funding schemes for higher education. Scott (1989) predicted two prominent changes that occurred as a result of these fiscal reforms first, "universities will be bound by much tighter rules when they receive state grants, which will certainly involve more detailed auditing and performance measurement." Second, "universities will have to bid against each other to participate in specific initiatives for which funds will be earmarked and accounted separately" (p 303) The 1988 and 1992 Acts ultimately established the foundation for the centralization of fiscal control and the implementation of new performance and quality standards for higher education It is also important to note that these changes occurred during a time when the Tory government mandated that higher education double its enrollment by the turn of the century without any additional publicly generated resources.

Today, three British government departments, including Education and Employment, Science and Technology, and the Cabinet Office, are exerting unprecedented influence on the ways in which activities of universities and colleges are conducted and managed. Through the Higher Education Funding Councils, the Department of Education and Employment (DEE) has designed and operates a funding system based on performance criteria and quality measures in teaching and research By using the HEFC system of performance and quality indicators, resources are allocated based on governmentally defined guidelines. Some of the indicators reflect the growing economic needs of the state by emphasizing technical, industrial, and business-oriented demands for higher education The DEE continues to increase its influence over higher education by monitoring employer decisions and encouraging industrial partnerships The Cabinet Office has implemented a Higher Education Charter, which focuses on the notion of "consumer satisfaction," and a set of obligations that institutions are expected to meet. The extent of this requirement will include satisfaction surveying of consumers, students, research contractors, employers, and members of the local community.

The statement that best exemplifies the British government's philosophy for infusing performance-based accountability into the mechanics of higher education institutions was summarized by Salter and Tapper (1994) when they stated that "the pressures upon the state to control higher education's resources, and force it to respond to what we have called the 'economic dynamic' are overwhelming and inescapable Modern economies require an ever-changing blend of new knowledge and educational manpower if they are to function effectively, and no state can afford to leave its higher education system to its own devices" (p. 18) Shattock (1994b) symbolically referred to this transition period as the end of an era of independent academic culture in Britain

Emerging Performance-Based Reforms

If one takes a broad view of the European continent, it is evident that higher education is in the midst of an immense transition period during which performance-based accountability reforms are widespread. In most cases, the dynamics encompassing these reform efforts are reflective of those that U S. and British policymakers have been struggling to address over the last decade The need to monitor and assess institutional performance is a recurrent theme among European nations with mature higher education industries. For example, in Finland a new funding model was implemented in 1997, incorporating a performance component that constituted 3% of the entire university budget (Hamalainen & Moitus, 1999, Holtta, 1998, p 59) The performance-funding component is based on five indicators measuring institutional efficiency and effectiveness in academic activities first, by measuring an institution's ability to attract external funding from domestic and international sources, second, by measuring an institution's relative position in the institutional rankings in international student and faculty exchange, third, by measuring the efficiency of adult education services, fourth, by measuring career placement of graduates in the labor market, fifth, by measuring the success of the institution in creating academic quality in teaching and research (Holtta, 1998, p. 59).

Like Britain, Finland and other European governments are struggling to find the proper balance between institutional autonomy and performance-based assessments In Germany, Sweden, Denmark, and Austria, universities are gaining more financial autonomy through pilot funding programs and limited block grant allocations as part of the tradeoff for increases in centralized performance-based demands (Cave, Hanney, Henkel, & Kogan, 1997) In the Netherlands, policymakers have implemented a research funding mechanism similar to the British plan where research productivity is assessed on a government rating scale (El-Khawas & Massey, 1996)

Influenced by recent U S and European trends and their own fiscal dilemmas associated with rapidly expanding higher education systems, the Canadian provinces of Alberta and Ontario also have recently adopted performance-based funding as a mechanism to assess university efficiency and quality (Barnetson, 1999, Gilbert, 1999). The Alberta performance system uses a 1–3 ranking process to assess institutional quality, research, and efficiency. Universities acquiring higher rankings may receive up to a 2.75% or a $6 05 million funding increase In Ontario the Ministry of Education and Training will implement a plan in 2000 linking up to 6% of annual appropriations to three performance indicators measuring college graduation rates, graduate employment rates, and alumni, employer, and student satisfaction (*London Free Press,* 1998) The new funding scheme will allocate approximately $16 5 million to universities and $14 million for community colleges. Institutions that rank in the top third in their category will receive twice as much funding as the middle third, while those in the bottom third will receive no funding

These international performance-based initiatives represent a sea of changes in the relationship between governments and higher education. In attempting to produce greater accountability, the state is entrusting university and institutional leaders with educational missions that are calculated to address the necessities of a national economy in a competitive global marketplace In this more competitive model governments carefully scrutinize the overall progress and performance of universities in addressing the economic needs of the state through the use of fiscal incentives and disincentives Universities, on the other hand, are expected to compete intensely for additional resources based on predetermined performance objectives established by the state In this kind of performance-based system the responsibility for improvement rests with individual institutions and departments

Commonalities Among Performance-Based Systems

In reviewing the progression of the recent performance-based accountability movement in the United States, Britain, and other OECD nations, two important commonalities emerge First, performance funding and budgeting policies have intensified the tension between policymakers and higher education administrators and faculty because of divergent objectives Government authorities prefer to use indicators that measure institutional efficiency, consumer satisfaction, job placement, and value for resources They also advocate using performance measurements as a means of comparing institutional productivity and performance. On the other hand, university administrators and faculty favor performance measures that reflect the quality of the educational experience in a manner that elucidates their own specific institutional mission(s) University leaders also advocate the adoption of performance measures only when they are premised on the assumption that the results will be used in a noncompetitive manner to improve one's own performance

Second, it is clear that the nature of the state's relationship with higher education has evolved from one of authoritative oversight, to one of active involvement in financial arrangements and economic decisions. This represents a significant change in governmental expectations of higher education. According to Goedegebuure et al (1994), "The trend for national governments is to retain the prerogative to set broad policies, particularly budgetary ones, while increasingly transferring the responsibility for growth, innovation, and diversification in higher education to individual institutions" (p. 1) Under these new arrangements, governments are simultaneously devolving more control over programs and budgets to individual institutions while directly intervening in higher education systems in order to ensure greater economic efficiency, quality of outcome, student access, and accountability.

McGuinness (1994) recognized that these fundamental changes in the relationship between governments and higher education were caused by new economic demands Higher education has evolved into a foundational component of national economic growth It is being called upon to resolve the economic problems of nations without adequate investment in most circumstances Once it has been established that the primary purpose of higher education is to serve the economy, then it becomes the responsibility of the state to ensure that the institution is held accountable in successfully achieving this task

Conclusion

For nearly two decades pressures on states to gain greater control over higher education resources has been overwhelming and inescapable Driven by a 'new economic dynamic,' societies throughout the world are requiring an ever changing combination of highly skilled workers and knowledge that only education can provide As Salter and Tapper (1994) stated, the stakes have become far too great for nations to leave their higher education systems to their devices, and "such action would amount to an abdication of responsibility which no present-day government or its bureaucracy could tolerate either in terms of their internal organizational dynamic or in terms of the external demands upon them" (p. 18). During the last decade, this governmental responsibility has emerged in policy form under the mask of performance-based accountability

In seeking ways to measure greater productivity and performance, governments are reflecting a more utilitarian view of higher education. From a utilitarian perspective, economic values are supreme and the quantification of fiscal resources is the true measure of value Unfortunately, university leaders who are unable to define and demonstrate educational objectives and achievements in utilitarian terms will have limited success in meeting the new demands placed on higher education These pressures do not appear to be withering away as governments advance mixed messages to higher education, demanding greater performance without additional financial investment As Breneman (1993) indicated, these financial changes are not an aberration in historical funding patterns but are a new reality to which higher education will have to accommodate

In this utilitarian environment, it is inevitable that governments will seek greater accountability and performance States are not being driven in this direction because of an authoritative desire to control and regulate, as Levine (1997) insists Governments are attempting to better monitor and assess colleges and universities in practical ways because of their utilitarian compulsion to acquire more value for resources

Higher education does not have to be completely comfortable with this utilitarian approach There is nothing wrong with institutions being uneasy with externally mandated performance-based accountability In fact, as Bender (1997) observes, "The university ought never to be too comfortable in and with society—and vice versa" He further stated, "There ought to be a degree of friction deriving from the critical spirit that is central to academic intellect" (p. 31) This friction is essential for developing effective performance measurement systems that truly assess educational quality and productivity

Notes

[1] In 1997, local and state governments in the United States spent $960 billion on higher education This constituted 6 22% of the entire budget and a decline of 2 16% since 1982 During the same period the percentage of local and state government budget support received by Medical Care increased by 8 6%, while corrections received an increase of 1 9%

[2] European countries that have adopted student fee policies include France, Belgium, Spain, Ireland, Italy, Netherlands, Portugal, Switzerland, and the United Kingdom

[3] In 1992, separate funding councils were established for England, Scotland, and Wales

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To Keep or Not to Keep Performance Funding

Signals from Stakeholders

Introduction

Performance funding for public colleges and universities, which ties state funding to institutional performance, shows the conflicting characteristics of popularity and volatility. By 1999, 16 states had performance funding, and 9 more appeared likely to adopt it, but 4 states had already abandoned their efforts (Burke & Modarresi, 1999). Although increasingly popular in state capitals, performance funding remains highly controversial in academic circles. The former focus on its abstract appeal for encouraging external accountability and institutional improvement, the latter fixate on its perplexing problems of conception and implementation. The mix of popularity and instability of performance funding raises intriguing questions. Why did some states keep while others quit performance funding? And, what characteristics distinguish stable from unstable programs? This study surveys state and campus policymakers for signals that supply some tentative answers to these questions. The purpose of this article is not to argue for or argue against the validity or desirability of performance funding but to identify some of the characteristics that seem to separate stable from unstable programs.

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Accountability: A Paradigm Shift

Performance funding for public colleges and universities is only the latest in a series of efforts by states to ensure accountability for campus performance. Only organizations that are fully self-sufficient can claim complete autonomy and avoid external accountability Public colleges and universities that receive a majority, or a sizable portion, of their resources from state government must respond to the concerns of state officials and the taxpaying public Accountability is a challenge, not a choice, for state colleges and universities The real question with accountability for public higher education is not whether, but for what and how

The goal of accountability changed dramatically in the mid-1980s It moved from accounting for expenditures to demonstrating performance The shift came from two sources. First, leaders of public colleges and universities had long argued that the nature of higher education differed dramatically from that of state agencies; it depended on the creativity and initiatives of faculty professionals, who require considerable autonomy to produce desirable achievements The second source stemmed from the movement to reinvent government It urged governments to concentrate on results rather than regulations to improve performance Many states and their campuses struck a tacit bargain. states granted increased autonomy to public colleges and universities in return for credible evidence of improved performance

The method of ensuring the new accountability moved progressively from assessing, to reporting, and—most recently—to funding performance. The methods changed, because state officials thought that public campuses often failed to keep their side of the bargain Outcomes assessment dominated accountability in the last half of the 1980s. Unfortunately, it produced only external observance on many campuses and did not provide the credible and comparable evidence of institutional performance that governors and legislators desired (Ewell, 1996) In response, many states turned to performance reporting in the late 1980s and early 1990s (Ruppert, 1994) These reports recorded institutional results on a common set of indicators. The national recession in the early 1990s and the resulting decline in state revenues meant that the indicators in performance reporting added efficiency to the quality measures that appeared in assessment plans. Performance reporting relied on information alone to encourage improved efficiency and effectiveness It lacked financial consequences for institutions with good or poor performance (Ruppert, 1994) Moving from performance reporting to funding seemed a logical step to state officials, but it represented a large leap to campus leaders.

Performance Funding

Performance funding ties tightly state allocations to prescribed levels of campus achievement on designated indicators. It adds institutional performance to the input factors traditionally used in state budgeting for public higher education current costs, student enrollments, and inflationary increases. Traditional budgeting—like the old accountability—focused only on inputs, whereas performance funding also considers results States had previously provided front-end funding to encourage desired activities in public colleges and universities. Performance funding differs from these earlier efforts by allocating resources for *achieved* rather than *promised* results. It shifts somewhat the budget question from what states should do for their campuses toward what campuses do for their states The shift is relatively small in all states, because the sums allocated to performance run from less than one to six percent of state operating support (Burke & Serban, 1998). The workload considerations of current cost, student enrollments, and inflationary increases continue to determine the lion's share of state funding for colleges and universities

Performance funding benefited from the experiences of assessment and reporting, for it built in many of their components. It also suffered from similar shortcomings Performance funding contains six major components, although the details differ from state to state It shares the first three with performance reporting. *Program goals*—avowed or implied—include external accountability, institutional improvement, increased state funding, improved public perception of higher education, and meeting state needs *Performance indicators*—such as retention/graduation rates and licensure test scores—identify the areas of anticipated achievements *Success standards* use improved performance for each campus, comparisons with the results of state or national peers, or a combination of these criteria. *Funding weights* assign the same or different values to the indicators or allow some campus choice. Annual *funding levels* comprise a percentage of state operating support for campus operating budgets *Funding sources* involve additional or reallocated resources or a combination of both approaches. Most of the current programs call for addition funding (Burke & Serban, 1998, chaps. 4 & 5)

Many of the components presented challenging conceptual or practical problems The conceptual problems arose mainly from the complexity and diversity of higher education and from the lack of agreement on the outcomes of undergraduate education and on the means of assessing their achievements Although educational quality has long been the hallmark of higher education, the academic community has never determined nor defined with any precision the objectives of undergraduate education nor developed systematic methods for assessing learning outcomes By default, the perception of institutional quality—in society and, unfortunately, on campus—depends largely on the quantity of institutional resources, the quality of admitted students, and the reputation of faculty research It is no accident that the most controversial indicators deal with the quality of undergraduate education. Academics frequently call satisfaction surveys of students, alumni, and employers soft and subjective, yet deny the validity and reliability of standardized tests.

Some academics see an incompatibility between the goals of external accountability and institutional improvement (Ewell, 1994); the first focuses on ends, the second on means Accountability demands credible evidence of institutional results, whereas improvement requires process changes that affect institutional performance Acceptable performance indicators—supported by available data—offer imperfect measures of institutional achievements, given the complexity of higher education and the diversity of institutions The success standards that use institutional improvement and comparison with peer institutions sought to address some of these problems of complexity and diversity. Process measures using research on best educational practices serve as substitutes for outcome indicators on student learning Most of the programs rely heavily on satisfaction surveys of students, alumni, and—to a lesser extent—employers as a means for assessing student learning and institutional performance

Performance funding also presents practical problems Assigning funding weights for indicators involved decisions on whether to weigh all measures equally or to assign distinct values to each item. Funding levels had to find that delicate balance between amounts large enough to spur improved performance, yet not so large as to threaten budget instability

Along with many government programs, performance funding reflects, with varying emphases, the policy values of *efficiency*, *quality*, *equity*, and *choice* *Efficiency* calculates the resources used compared with the results achieved. *Quality* means meeting or exceeding designated standards of performance. *Equity* involves satisfying the diversity of group or institutional needs *Choice* offers the opportunity to select from a range of program options (Burke, 1997, Marshall, 1989; Richardson 1994). Performance-funding programs stressed efficiency and quality and slighted equity and choice indicators.

Burke laments the lack of equity and access indicators in many performance programs. "Whatever the current political and social attitudes, access and equity are surely essential and enduring values for higher education that are worthy of inclusion in performance funding indicators" (Burke, 1997, p 21). One reason for the scarcity of access indicators is that many of the early programs in performance funding arose in states without increasing demands for student enrollment. On the other hand, Florida, which faced a huge increase in student demand, had no access indicators Some of the recent programs in states with burgeoning enrollments do include indicators that emphasize student access and tuition restraints Sadly, the new programs still slight or neglect equity indicators related to underrepresented groups Clearly, the policy goals of equity and access suffer from a "notion of quality, which viewed it mostly as a matter of standards" (Burke, 1997, p. 16). Unfortunately, this notion seems to prevail on campus as well as in society. The scarcity of equity indicators related to race represents a recent trend. The performance reports of the late 1980s and the early 1990s usually included an equity component to indicators on enrollments and graduation, retention, and transfer rates (Ruppert, 1994).

Tentative Assumptions

Previous studies of performance funding suggest some tentative assumptions about the characteristics that might distinguish stable from unstable programs (Albright, 1998; Burke, 1997; Burke & Serban, 1998; Morrison, 1995; Stein, 1996).

1. *Collaboration* between governors and legislators, state coordinating and university system officials, and campus leaders and trustees

   Stable programs require initial and continuing collaboration among all of these stakeholders. Governors and legislators provide the state funding; coordinating and system officials supply the policy support, and campus leaders and trustees set the institutional priorities required for success in performance funding

2. *Goals* of institutional improvement, external accountability, and increased state funding

   Despite the inherent tensions between institutional improvement and external accountability, state-funded programs for public colleges and universities can not survive for long without satisfying both goals. Campus leaders often prefer institutional improvement and complain of the restraints of external accountability. Governors and legislature naturally demand evidence that performance funding increases accountability, but they also desire improvement in programs and services The prospect of increased state funding offers an obvious incentive for campus cooperation.

3. *Policy values* stressing quality more than efficiency.

   Quality is the hallmark of higher education All public programs should incorporate both quality and efficiency, but the fundamental purpose of pursuing quality in educational institutions makes it a primary priority. Even state policymakers acknowledge that efficiency, though desirable in itself, is diminished unless it is coupled with quality programs and services The problem is not with the value of quality but with its definition and assessment Although neglected in earlier programs of performance funding, access is a critical characteristic, especially in states with increasing enrollment demands. Unfortunately, society seems to have abandoned equity for minorities as a policy value

4 Sufficient time for *planning* and *implementation.*

   Complexity of program design, controversy over program components, consultation with multiple stakeholders, collection of required data, and complications of program execution demand considerable time for planning and implementation

5. Neither too few nor too many *performance indicators.*

   Too few indicators ignore too many of the multiple objectives of colleges and universities; too many indicators trivialize major priorities by tying trifling sums to important indicators.

6 *Success standards* emphasizing institutional improvement supplemented by peer comparisons.

   The diverse types and multiple missions of public campuses make institutional equity an essential element of stable programs of performance funding Given this diversity, the fairest standard of success looks first at the improvement of individual institutions and then at their performance in comparison with similar colleges or universities. The first consideration supports campus differences; the second ensures comparable standards.

7 Restricted but substantial *funding*

Restricted funding prevents budget instability on campuses Substantial funding recognizes the priority and difficulty of the program Performance funding works best at the margin of a campus budget, but the amount of funding must match the importance of its goals and the difficulty of its tasks

8 Additional rather than reallocated resources as the *funding source*

Additional money makes performance funding a desirable project on campus It becomes a special initiative with its own funding rather than another activity competing for limited resources

9 Resolution of the *major difficulties* of choosing performance indicators, assessing higher education results, protecting mission diversity, and safeguarding campus autonomy

The multiplicity of goals in higher education makes choosing a limited number of the indicators a perplexing problem The ambiguity of these goals and the lack of agreement on how to measure their achievement complicate the task of assessing results in higher education. Designing a funding program that not only covers but also fits a wide diversity of campus missions presents another difficulty Finally, performance funding must specify and support particular priorities without diminishing the campus autonomy required for institutional diversity and faculty creativity

10 *Stability* of state priorities and program requirements

Achieving results in higher education takes time. State priorities and program requirements must remain long enough to allow campuses to produce the desired and demanding results

11. *Prospects* of a favorable long-term future

The effort required by campus professionals to raise performance and produce results demands that they perceive a long-term future for performance funding Long-term results are unlikely in programs with uncertain prospects

Method

This study uses a survey of state and campus leaders to test the validity of these tentative assumptions. Although the survey shows only the perceptions and not the realities of these characteristics, in programs—as in politics—opinions are critical to survival and success. The attitudes of campus and state policymakers toward these programs can supply signals of the characteristics of stable and unstable attempts at performances funding

Study Population

The original survey went by mail to state and campus policymakers in 9 of the 10 states with performance funding in December 1996. They included Arkansas, Colorado, Kentucky, Minnesota, Florida, Missouri, Ohio, South Carolina, and Tennessee State officials included governors, their education aides and budget officers, and the legislative chairs of the fiscal and education committees Chairs of higher education coordinating boards and their senior officials and board chairs and major officers of university systems also received questionnaires In addition, the surveys went to presidents, vice presidents, academic deans, and chairs of faculty senates at all of the public colleges and universities in the 9 states, except specialized institutions and schools (see Appendix 1 for the sample sizes of policymakers in each state)

The responses from the 4 states that later dropped performance funding constituted the unstable group Arkansas, Colorado, Kentucky, and Minnesota Of the 5 states in the survey that retained performance funding, this study uses only Missouri and Tennessee for the stable group Performance funding in these 2 states seems to incorporate the characteristics projected in the assumptions about stable and successful programs Both of these initiatives benefit from careful design, gradual implementation, considerable continuity, and general acceptance by stakeholder groups. Their efforts exhibit close collaboration between coordinating officials and senior campus officers, a limited but sufficient number of indicators, and restricted but substantial funding Their goals stress institutional improvement, without ignoring external accountability, and their policy values emphasize quality over efficiency (Banta, 1996, Bogue & Brown, 1982; Burke & Serban, 1998, Ewell, 1994, Morrison, 1995, Stein, 1996, Stein & Fajen, 1995) In contrast, the continuing programs in Florida and Ohio seem too uncertain, and the one in South Carolina too controversial, to represent stable and successful examples of performance funding (Burke & Serban, 1998, Trombley, 1996, Williams, 1996).

The average response rates for both groups to the survey were similar The stable group achieved an average of 50 8%, ranging from 49 3% in Missouri to 52 3% in Tennessee The response rate for the unstable group averaged 50 7%, running from 42% in Kentucky to 63% in Arkansas Colorado's rate reached 47 5% and Minnesota's 50%. The stable group had 177 respondents, the unstable group 351.

Survey Limitations

The survey distribution to all of the public colleges and universities in the study states, except specialized institutions, resulted in many more responses from campus representatives than from state officials or coordinating and system officers Consequently, the overall results do not necessarily represent the attitudes of state, coordinating, or system officials However, a previous study of the returns found more agreement between state and campus groups than expected (Serban, 1997) The response rate from state legislators and chairs of coordinating boards proved disappointing. On the other hand, the responses from these groups as well as from the other stakeholders represented similar proportions of the returns from each of the 6 study states The larger number of two-year than four-year campuses in each state did not bias the survey responses, because the former had more deans and better response rates than the latter. Campus returns from four-year institutions actually exceeded those from two-year colleges in all 6 of the states (see Appendix 1)

Survey Instrument

The staff of the Higher Education Program at the Rockefeller Institute developed the survey instrument A dozen experts in higher education policy and finance reviewed the questionnaire for clarity and validity. It posed 22 questions that covered the characteristics of performance funding This study considered only the questions that proved relevant in identifying the differences or similarities in the responses from the two groups of stable and unstable programs These questions fall naturally into seven categories stakeholders' input, future prospects, goal achievement, main difficulties, current and desired policy values, suggested improvements, and the appropriateness of indicators frequently used in performance funding

Statistical Analysis

Appendix 2 contains the descriptive data and the coding of the responses from the two groups on the variables This study constructed a multivariate model, which uses discriminant analysis to identify and rank the independent variables, based on their comparative contribution to differentiating the responses from the two groups. The two groups of stable and unstable programs constitute the dependent variable in the model The responses to the relevant questions represent the independent or discriminating variables The analysis uses the discriminant procedure of the SPSS system with linear classification rules and prior probabilities proportional to the sample size

Discriminant analysis is a multivariate version of Analysis of Variance (ANOVA) and provides the basis for a multivariate test of significant differences in mean profiles (SPSS, 1988, Weslowsky, 1976). To explain the total variance in a model, canonical discriminant analysis computes a number of canonical discriminant functions (CDFs). These functions equal the smaller of either the number of independent variables or one less than the number of class variables (SAS/STAT, 1992). In this study, the number of independent variables far exceeded the two class variables (the two groups of stable and unstable programs) Therefore, the analysis computes one function.

Two main indices can explain the relative contribution of independent variables in the construction of a discriminant function. *Canonical structure* indicates the correlation coefficients between the scores of the discriminant function and the values of independent variables. *Standardized Coefficients* reveal the effect of individual variables on the construction of the discriminant function by controlling the effect of other variables (Cruze-Castillo, Ganeshanandam, Mackay, Lawes, & Woolley, 1994, Momen & Zehr, 1998; Rencher, 1992). This analysis uses the *Canonical Structure*, which experts recommend when significant correlations exist between the independent variables, as they do in this project (Afifi & Clark, 1990, Cruze-Castillo et al , 1994; Matthew, Lawoko, Korte, & Smith, 1994)

Results

Discriminant analysis computed a function or equation that explained significantly ($p < 0\ 01$) the total variation in responses between stable and unstable programs. The canonical correlation of 0.55 indicated that the discriminant function represents a moderate degree of association between the function and group membership. The group means give the scores of the discriminant function for the two groups based on their responses to all of the independent variables. The negative group means (–0. 85) represent the replies from Missouri and Tennessee; the positive means (0.42), those from the group that dropped performance funding. These mean scores suggest significant differences between the two groups The percentage of correct classification of respondents into appropriate groups measures the accuracy of discriminant models (Johnsrud & Heck, 1994) A correct classification of 50% represents no better than chance Our model classified correctly 79% of the respondents into stable or unstable programs.

Table 1 shows the most important variables in distinguishing the responses from the stable and unstable groups. It lists them from the highest to the lowest discriminating power The two groups differed most sharply on the achievement of program goals, the importance of stakeholder inputs, the appropriateness of performance indicators, and the prospects of the program's future.

TABLE 1

Canonical Structure Indicating Correlation Coefficient Between Independent Variables and the Scores of the Canonical Discriminant Function

Variable	Function
Improvement of higher education	-0 45
Administrative size	0 39
Faculty workload	0 36
Input from business leaders	0 34
Input from legislators	0 32
Increased accountability	-0 32
Uncertain	0 28
Input from community leaders	0 23
Increased state funding	-0 23
Input from governor	0 22
Favorable long-term (4–7 years)	-0 21
Input from state higher education coordinating board	-0 21
PF will improve by fewer indicators	-0 20
External peer reviews	-0 15
Input from state higher education coordinating officer	-0 14
Choice should be	0 14
Retention/graduation rates	-0 14
Alumni satisfaction survey	-0 13
Implementation costs	0 13
Changing state priorities	0 12
Erosion of campus autonomy	0 12
Quality is	-0 12
Improved public perception	-0 11
Students satisfaction survey	-0 11
Standardized tests	-0 11
Measuring results	0 11
Professional licensure exams	-0 11
Budget instability	0 10
Job placement	-0 09
Choice is	0 08
Insufficient time for implementation	0 08

The stable group appeared much more positive about achieving all of the program goals than the unstable group Improving higher education (–0 45) constituted the top variable in discriminating between the two groups. Two additional program goals—demonstrating accountability (–0.32) and increasing state funding (–0 26)—also produced substantial differences Clearly, respondents from Missouri and Tennessee felt their programs had a better chance of achieving these goals than did the group representing the aborted programs in performance funding. Perhaps for this reason, they foresaw a favorable future for their programs (–0.23), whereas the unstable group predicted uncertain prospects for their efforts (0 32)

The relative inputs of various stakeholders in the design and development of performance funding also separated the two groups. The replies from the unstable group rated the input from business leaders (0 34), legislators (0 32), community leaders (0.23), and governors (0 20) as most significant Conversely, those from Missouri and Tennessee considered the input from coordinating boards (–0 21) and coordinating officers (–0.14) as more important than those from the 4 states that ended performance funding.

Attitudes toward the appropriateness of particular indicators also separated the two groups The unstable group strongly preferred the indicators of administrative size (0 42) and faculty workload (0.39) The stable group showed more preference for external peer reviews (–0 15), retention/graduation rates (–0 14), standardized tests (–0 11), licensure exams (–0.11), and alumni survey results (–0 13) Fewer indicators (–0 20) represented the only recommendation for improving performance funding that divided the groups.

The policy value of quality also separated the stable from the unstable programs Respondents from Missouri and Tennessee indicated that their current program stressed quality (–0.11) more than did replies from the unstable group. The major difficulties that characterized the replies from the unstable group read like a litany of the complaints about performance funding They included implementation costs (0 13), changing state priorities (0 12), erosion of campus autonomy (0 12), measuring the results of higher education (0 11) budget instability (0.10), and insufficient time for implementation (0 08).

Discussion

The empirical findings from discriminant and descriptive analyses (see Appendix 2) confirm most but not all of our tentative assumptions

They suggest that stable programs of performance funding exhibit the following characteristics more than do unstable programs:

1 Important input by state coordinating boards and their officers,
2. A sense of achieving the goals of improving higher education, demonstrating accountability, and increasing state funding,
3 Policy values stressing quality more than efficiency;
4 Sufficient time for planning and implementation,
5. A limited number of indicators,
6 Restricted but substantial funding;
7 Prediction of a long-term future,
8 Stable state priorities,
9. Protection against budget instability; and
10 Curbed costs of implementation.

Agreements, as well as differences, between groups representing stable and unstable programs also deserve attention when stating the characteristics of stable efforts of performance funding. The responses on the variables show that the group that kept and the one that ended performance funding agreed on the following desirable characteristics:

1 Careful choice of performance indicators,
2. Recognition of the difficulty of measuring results in higher education, and
3 Preservation of institutional diversity.

The combined findings of differences and agreements form the tentative characteristics of stable programs of performance funding Case studies of the programs in Tennessee (Ewell, 1994; Morrison, 1995) and Missouri (Stein, 1996) suggest some of the same reasons for their success

Unstable programs show significantly more input from those outside of higher education, such as legislators, governors, business leaders, and community representatives. Stable programs exhibit more input from boards and officers of coordinating agencies for higher education. The differences in stakeholder input probably stem from the two methods of initiating performance funding Coordinating boards in Missouri and Tennessee voluntarily adopted performance funding, whereas governors and legislators mandated it in 3 of the 4 states that later abandoned the program. In the fourth state, Arkansas, the coordinating board acted only after the governor threatened to impose performance funding (Burke, 1997, Burke & Serban, 1998)

Although discriminant analysis identifies significant differences in stakeholder inputs, the mean scores of the responses show that both groups stressed the importance of collaboration among leaders from state government, coordinating agencies, and university systems The relatively low mean score from Missouri and Tennessee on the input from campus leaders is surprising The coordinating officials in these states actively engaged campus representatives in the design, implementation, and revision of their programs (Morrison, 1995; Stein & Fajen, 1995) In contrast, three of the four unstable programs had only slight input from campus leaders. The coordinating agency in the fourth, Arkansas, used a committee dominated by campus officers to design performance funding, but that group developed a program to please the governor and avoid a state mandate (Burke & Serban, 1998, chap 3)

Three of the listed goals of performance funding–improved higher education, demonstrated accountability, and increased state funding—proved most useful in predicting the groups of stable and unstable programs The preponderance of campus leaders in the survey sample undoubtedly contributed to the finding that improvement of higher education constituted the most significant variable It may also explain the importance attributed to increased state funding However, the significance assigned to increased accountability—hardly a preferred goal on campus—recognized that performance funding must pursue external accountability as well as institutional improvement. The literature supports the perception that performance funding in Missouri and Tennessee has improved performance, demonstrated accountability, and increased state funding (Banta, Rudolph, Van Dyke, & Fisher, 1996; Stein, 1996). The questionnaire in this study failed to include meeting state needs, which might have changed the relative ratings of the other goals

The perception of the future prospects of performance funding is critical to stability and success. A sense of an uncertain future characterized the responses from the states that later dropped the program Conversely, a belief in the long-term prospects of performance funding marked a majority of the replies from Missouri and Tennessee For a controversial program that challenges campuses to change, success depends on the sense of a long-term commitment to ensure the cooperation of colleges and universities Concern about changing state priorities and program requirements in the replies from the unstable group underscores the importance of this continuing commitment

It is not surprising that the returns from the states that stopped performance funding showed more concern about major difficulties than did those from the stable programs. The former expressed greater anxiety about protecting campus autonomy, avoiding budget instability, rushing program implementation, changing state priorities, shifting program requirements, and incurring implementation costs. These ratings reflected the belief that their programs had not dealt well with some of the major problems of performance funding On the other hand, both groups agreed on the major difficulties of choosing performance indicators, protecting institutional diversity, and measuring higher education results Both the differences and the agreements on potential difficulties deserve attention when designing programs that tie state funding to campus performance.

The results on policy values suggested that stable programs of performance funding currently favored quality more than did unstable programs, although both groups viewed quality as the most desirable policy value A previous study of performance indicators supports this finding That study concluded that the indicators used in Missouri and Tennessee clearly stressed quality, whereas the indicators in the 4 states that ended performance funding emphasized efficiency (Burke, 1997) That article also confirmed our survey findings that state and campus policymakers showed little interest in equity and choice. In the survey, the group that ended their effort did view equity as slightly more desirable than the one composed of Missouri and Tennessee This response could reflect the sense that the unstable programs failed to protect institutional diversity The unstable group also believed their current program stressed choice more than the group from Missouri and Tennessee Despite these differences, both groups gave low scores to both equity and choice as a policy value

The low ratings given by both groups to equity and choice suggest a possible misunderstanding of these concepts. Some respondents may have misperceived equity as limited to race and gender and as omitting fair treatment of institutions and encouraging access for instate students. The low ratings given to the policy value of choice in this study may also have resulted from a misconception of that objective. Respondents apparently overlooked choice as providing campuses with options in selecting among indicators or other program components

The differences between the two groups of respondents on performance indicators seemed to show a preference for the measures in their existing programs. For example, the efficiency indicators of administrative cost and faculty workload appear as top factors in separating unstable from stable programs. Neither Missouri nor Tennessee included these measures. However, Arkansas and Colorado had both administrative costs and teaching loads, and Minnesota used an indicator reflecting administrative costs (Burke, 1997) Although the last plan in Kentucky omitted administrative cost and faculty workload because of campus resistance, an earlier version included both items

The performance programs in Missouri and Tennessee stressed quality indicators on teaching and learning—such as program reviews and standardized tests in general education and academic majors. Three of the four unstable programs did not use program reviews or standardized tests. Arkansas included both measures, but its range of indicators emphasized efficiency more than quality (Burke, 1997) Agreements between the two groups on appropriate indicators seem instructive, because their differences appear to reflect variations in measures found in their existing programs Both groups disliked time-to-degree and gave high marks to retention/graduation rates; satisfaction surveys of students, alumni, and employers, licensure exam scores; job placements; and K-12 linkage The high scores granted graduation rates is surprising, because representatives from two-year colleges and baccalaureate campuses with lower admissions requirements often complain that this indicator really reflects student preparation more than institutional performance. Perhaps the campus respondents in both groups thought that the success standards based on institutional improvement and peer comparisons dealt adequately with this difficulty.

The survey data on the desirable number of indicators seem confusing. The responses from Tennessee and Missouri recommend both more and fewer indicators, which differs significantly from the replies of the unstable group Although this result sends a mixed message, it does emphasize the importance of adopting enough, but not too many indicators. Discriminant analysis revealed that fewer indicators represent a more significant variable than more measures in distinguishing the stable from the unstable group This result seems surprising, because Missouri and Tennessee had fewer indicators than 3 of the 4 states that ended their programs (Burke, 1997) Perhaps, respondents from the stable group worried more about spreading limited funding over too many objectives than they did about slighting priority areas by omitting their indicators

Conclusion

The findings of this study demonstrate the dilemma of performance funding—its desirability versus its difficulty. The replies from Missouri and Tennessee centered on the desirable objectives of performance funding, whereas those from the unstable group concentrated on its inherent difficulties The former suggested its possibilities, the later stressed its problems The stable group from Missouri or Tennessee did not ignore the challenging problems of performance funding, but they did feel that their programs incorporated acceptable approaches to these issues Taken together, the differences and agreements of these two groups of stakeholders offer signals of the characteristics of stable programs in performance funding Incorporating these characteristics will not ensure the stability–much less the success—of performance funding in any state, but success is unlikely without considering them

Policymakers in each state will have to decide whether to keep or start performance funding They will have to balance its attractive goals against its definite difficulties Whatever the ultimate choice, they can benefit from the signals sent by stakeholders from the groups that kept and those that left this popular but volatile program

APPENDIX 1

The Survey Population and Responses by Stakeholder Groups by States

States		Governor's Office	Legislators	Coordinating Agency Officers	Chairs of System Governing Boards	System Admin Officers	Campus Senior Officers 4-Yr	Campus Senior Officers 2-Yr	Deans 4-Yr	Deans 2-Yr	Chairs of Faculty Senates 4-Yr	Chairs of Faculty Senates 2-Yr	Total
AR	Sent	3	3	3	0	2	27	38	41	3	9	13	142
	Received	2	1	1	0	1	21	27	21	2	5	9	90
	Rate	66 7	33 3	33 3	n/a	50 0	77 8	71 1	51 2	66 7	55 6	69 2	63 4
CO	Sent	3	2	3	5	3	38	35	48	21	13	12	183
	Received	2	0	3	1	2	22	12	24	10	6	5	87
	Rate	66 7	0 0	100 0	20 0	66 7	57 9	34 3	50 0	47 6	46 2	41 7	47 5
KY	Sent	3	4	3	0	3	24	42	56	50	8	14	207
	Received	2	1	3	0	2	13	15	25	20	4	2	87
	Rate	66 7	25 0	100 0	n/a	66 7	54 2	35 7	44 6	40 0	50 0	14 3	42 0
MN	Sent	3	5	2	1	3	31	45	54	2	11	21	178
	Received	2	0	1	0	2	22	17	30	0	4	11	89
	Rate	66 7	0 0	50 0	0 0	66 7	71 0	37 8	55 6	0 0	36 4	52 4	50 0
MO	Sent	3	6	3	1	3	30	23	53	8	11	9	150
	Received	3	1	1	1	2	17	11	27	1	7	3	74
	Rate	100 0	16 7	33 3	100 0	66 7	56 7	47 8	50 9	12 5	63 6	33 3	49 3
TN	Sent	3	4	3	1	2	28	40	60	32	10	14	197
	Received	1	2	2	1	2	17	23	33	14	3	5	103
	Rate	33 3	50 0	66 7	100 0	100 0	60 7	57 5	55 0	43 8	30 0	35 7	52 3

APPENDIX 2

Means, Standard Deviations, and Variable Coding

Variables	States With PF* Mean (*SD*)	States without PF* Mean (*SD*)	Measured
Future Prospects**			1 = checked, 0 = not checked
Favorable long-term (4–7 years)	0.51 (0.50)	0.34 (0.47)	
Uncertain	0.22 (0.41)	0.40 (0.49)	
Goal Achievement and Potential			5 = yes, achieved, 4 = not yet, but has potential, 3 = too soon too tell, 2 = no opinion, 1 = no, has no potential
Increased accountability	3.95 (1.27)	3.37 (1.15)	
Improvement of higher education	3.77 (1.29)	3.11 (0.94)	
Increased state funding	3.53 (1.56)	3.00 (1.29)	
Improved public perception	3.33 (1.36)	3.15 (1.01)	
Main Difficulties **			1 = checked, 0 = not checked
Choosing performance indicators	0.66 (0.47)	0.68 (0.47)	
Measuring results	0.65 (0.48)	0.71 (0.46)	
Diversity of institutional mission	0.61 (0.47)	0.68 (0.47)	
Funding too small	0.52 (0.50)	0.62 (0.49)	
Implementation costs	0.38 (0.49)	0.44 (0.50)	
Budget instability	0.33 (0.47)	0.45 (0.50)	
Changing state priorities	0.25 (0.43)	0.42 (0.49)	
Erosion of campus autonomy	0.20 (0.40)	0.34 (0.48)	
Frequent change of goals/indicators	0.19 (0.39)	0.30 (0.46)	
Insufficient time for implementation	0.15 (0.35)	0.28 (0.45)	
Current/Desirable Policy Goal			Ranked from 1 = lowest to 4 = highest
Quality should be	3.62 (1.09)	3.43 (1.22)	
Quality is	2.47 (1.67)	1.93 (1.53)	
Efficiency is	2.22 (1.55)	2.63 (1.59)	
Efficiency should be	2.16 (1.23)	2.13 (1.25)	
Equity is	1.61 (1.41)	1.64 (1.36)	
Equity should be	1.48 (1.15)	1.72 (1.19)	
Choice should be	1.09 (0.95)	1.21 (0.98)	
Choice is	0.96 (1.02)	1.19 (1.15)	
Improvement of Performance Funding**			1 = checked, 0 = not checked
PF will improve by fewer indicators	0.23 (0.44)	0.13 (0.33)	
PF will improve by more indicators	0.15 (0.36)	0.09 (0.28)	
Performance Indicators			5 = very appropriate, 4 = appropriate, 3= no opinion, 2 = inappropriate, 1 = very inappropriate
Retention/graduation rates	4.08 (1.12)	3.92 (1.05)	
Professional licensure exams	4.07 (1.08)	3.84 (1.01)	
Employers satisfaction survey	3.99 (1.14)	3.89 (1.01)	
Alumni satisfaction survey	3.91 (1.16)	3.88 (0.98)	
Students satisfaction survey	3.85 (1.23)	3.85 (1.01)	

APPENDIX 2 (*Continued*)

Variables	States With PF* Mean (*SD*)	States without PF* Mean (*SD*)	Measured
External peer reviews	3 85 (1 11)	3 63 (1 09)	
Job placement	3 70 (1 31)	3 75 (1 03)	
Standardized tests	3 61 (1 21)	3 22 (1 14)	
K–12 linkage	3 42 (1 30)	3 55 (1 03)	
Faculty workload	3 05 (1 42)	3 66 (1 16)	
Administrative size	2 86 (1 49)	3 55 (1 16)	
Time to degree	2 81 (1 27)	2 75 (1 22)	
Stakeholders' Collaboration			5 = very important, 4 = important, 3 = moderately important, 2 = slightly important, 1 = not important
Input from higher education coordinating board	3 71 (1 80)	3 21 (1 75)	
Input from higher education coordinating officers	3 59 (1 89)	3 07 (1 76)	
Input from higher education governing boards	3 47 (1 82)	3 31 (1 59)	
Input from higher education system officers	3 35 (1 82)	3 36 (1 64)	
Input from legislators	3 12 (1 79)	3 82 (1 49)	
Input from governor	3 03 (1 78)	3 65 (1 59)	
Input from campus leaders	2 78 (1 74)	2 79 (1 57)	
Input from business leaders	2 00 (1 55)	2 72 (1 51)	
Input from community leaders	1 92 (1 44)	2 34 (1 39)	

*Performance funding

**Mean represents the proportion

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Faculty Time Allocation

A Study of Change Over Twenty Years

Previous research suggests that research productivity at the institutional level has been steadily increasing over time and that an institution's place in the hierarchy influences the nature of that change (Bentley & Blackburn, 1990, Dey, Milem, & Berger, 1997). The findings from these studies indicate that faculty at all types of postsecondary educational institutions are spending increasingly more time engaged in activities associated with publication and research, but the extent of these increases is partially dependent upon the institutional setting in which faculty work At the same time, many observers of American higher education, inside and outside of the postsecondary enterprise, have become increasingly concerned about how faculty spend their time (Bok, 1992, Boyer, 1990, Cage, 1991, Massy & Zemsky, 1994). Studies also demonstrate that institutional type, among other factors, influences the ways in which faculty allocate their time and effort among the various facets of the academic role (Fairweather, 1993a; Jacobson, 1992, Tierney & Rhoads, 1993) Indeed, Jacobson (1992) suggests that "institutional drift," or the attempts by professors employed at institutions located in the middle and lower levels of the hierarchy of American postsecondary institutions to emulate the work characteristics of their peers at research universities, is the primary cause behind the increase of faculty activities in the area of research and writing Given the previous findings by Dey et al. (1997) regarding the increase of publica-

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tion productivity throughout the institutional hierarchy, and given the increasing concern about the ways in which faculty spend their time (Bok, 1992, Boyer, 1990; Cage, 1991; Ewell, 1994, Jacobson, 1992), it is clear that more empirical evidence is needed to adequately assess the changing nature of the academic role over time

Building upon the assumption that institutional type influences faculty role performance, this study uses previous theory and research that address issues of institutional stratification to examine changes in the amounts of time faculty spent engaged in teaching, advising, and research activities at the institutional level over a twenty-year period.

Conceptual Background

Scholars have long been interested in the factors affecting the way individual faculty members, departments, and institutions divide the various responsibilities associated with the faculty role (e g , Bowen & Schuster, 1986, Boyer, 1990, Braxton & Berger, 1996, Clark, 1987, Feldman, 1987, Finkelstein, 1984, Massy & Zemsky; 1994; Newman, 1985; Volkwein & Carbone, 1994) Scholars have also been interested in examining how different types of institutions impact the purposes of higher education (Bowen & Schuster, 1986) and in investigating conditions that foster diverse missions among postsecondary institutions (Birnbaum, 1983). It has been noted that external forces exert opposing pressures on faculty at the institutional, departmental, and individual levels to spend more time on either teaching or research (Braxton & Berger, 1996) For example, state legislators and public opinion frequently mandate that faculty focus on teaching, whereas patrons of research (e.g , private industry and foundations, federal research organizations) promote and reward research activity and productivity Given the recent evidence that faculty at all types of institutions are becoming more productive in terms of publication (Dey et al , 1997) and considering the growing concern regarding the accountability of faculty time (Massy & Zemsky, 1994), researchers and policymakers have compelling reasons for wanting to know more about how increased publication productivity relates to other aspects of the faculty role This is particularly true regarding the role played by institutional type as a major source of influence on academic role performance.

In combination, these concerns about the changing nature of faculty role performance in relation to systemic changes at the institutional level throughout American higher education over time suggest that we need to empirically examine the relationship between institutional type and changes in faculty role performance over time. It has been suggested that higher education as an organizational field is highly institutionalized, such that there are numerous external forces that create conforming pressures that result in isomorphic tendencies across all types of colleges and universities (Jacobson, 1992, Meyer, 1970; Meyer & Rowan, 1977) Proponents of this type of perspective have generally been identified as advocates of "new institutionalism" or the "neo-institutional" school of organizational sociology (DiMaggio & Powell, 1983, Scott, 1995).

The neo-institutional perspective advances the importance of the concept of institutional isomorphism, also known as "institutional homogenization," "institutional imitation," or "institutional drift" as an explanation for this trend (Astin, 1985, DiMaggio & Powell, 1983, Hackett, 1990; Jacobson, 1992, Jencks & Riesman, 1968; Levinson, 1989, Pace, 1974; Riesman, 1956; Scott, 1995) Institutional isomorphism suggests that institutions in the middle or lower ranks of the hierarchy try, consciously and unconsciously, to emulate institutions at the top. Riesman (1956) was the first to identify this process of institutional imitation when he described the system of higher education as a "snake-like" procession in which the tail (composed of institutions lower in the hierarchy) and the body (representing institutions in the middle of the hierarchy) of the snake continually try to move up and catch the head (those institutions at the top of the hierarchy)

More recent works have identified higher education as being a highly institutionalized field (Kamens, 1971, Meyer, 1970; Meyer & Rowan, 1978; Scott & Meyer, 1994), and the growth of neo-institutional theory has provided new insights into mechanisms that foster institutional isomorphism (DiMaggio & Powell, 1983, Scott, 1995) Neo-institutional theorists contend that regulative (informal and formal laws, rules, and sanctions that arise from common legal and governmental environments), normative (the professionalization of practices and roles through shared social obligations, codes of conduct, and common socialization patterns), and mimetic (the interpretation of the world through shared preexisting frames of reference that shape perception and behavior) mechanisms work together to create organizations (in this case, colleges and universities) that are becoming increasingly homogenized This process occurs as institutions strive to gain greater status and prestige by attempting to resemble more closely those institutions that have already established a "legitimate" high-ranking position in the institutional hierarchy (Scott, 1995) The primary role of scholarly productivity in the stratification of higher education institutions suggests that the production of scholarship is one such established expectation that institutions seek, consciously or otherwise, to imitate

Some observers of higher education in America have argued that decreased teaching loads over time have led to more discretionary time among faculty (Massy & Zemsky, 1994) The increments of discretionary time available to faculty have been referred to as "the academic ratchet" (Massy & Zemsky, 1994). These critics argue that teaching activities tend to suffer as faculty use their discretionary time to engage in more research-oriented activities Although Massy and Zemsky (1994) do not use neo-institutional concepts in their study of faculty time, it is clear that they are suggesting that there have been consistent changes in the way in which faculty allocate their time between teaching and research activities. Hence, the "academic ratchet" may be an example of patterns of faculty behavior that have become institutionalized across institutional contexts in a manner that creates isomorphic tendencies that lead to increases in research activities over teaching activities by faculty at all types of institutions. Certainly a neo-institutional perspective provides a rich theoretical explanation for why the ideology of the "academic ratchet" has become pervasive throughout American higher education

Other studies have found evidence that there have been consistent changes in faculty role performance over time that may also represent the existence of institutional isomorphism The most compelling findings suggest that publication productivity has increased significantly across all institutional types (Dey, et al , 1997). One of the key implications of this work is that institutional type plays a key role in shaping faculty role performance throughout the field of higher education More specifically, the authors found that faculty at institutions at the middle and lower portions of the higher education hierarchy in America (e g , non-research/doctoral institutions) are attempting to emulate the patterns of faculty role performance found at the research and doctoral universities in the top tier of this hierarchy Hence, the authors found significant evidence that institutional isomorphism has played a significant role in changes in faculty publication productivity over a twenty-year period

While most studies have focused on teaching and research as the major categories of faculty activity, others have suggested that faculty also have a primary responsibility for working with students outside of the classroom (Bok, 1992) Many scholars have suggested that time spent with students outside of the classroom is a vitally important component of the educational responsibilities of faculty members (Bok, 1992; Pascarella & Terenzini, 1980; Volkwein & Carbone, 1994). Any study relating to how faculty spend their time should include measures of out-of-class student contact in addition to the most commonly examined factors—time spent in research and writing and time spent on scheduled teaching of and preparation for classes

It is important that we consider different ways faculty spend their professional time in light of conflicting views about changing patterns of faculty time use For example, while many observers of higher education maintain that faculty are spending less time in teaching-related activities (Cage, 1991, Massy & Zemsky, 1994), others provide evidence which suggests that faculty are spending as much time as ever in work related to the teaching role (Bowen & Schuster, 1986) There are still others who claim that there is no conclusive evidence regarding changes in time spent on teaching (Jacobson, 1992) Empirical evidence does exist which shows that faculty are becoming more productive in their research efforts over time (Bentley & Blackburn, 1990, Dey et al , 1997) Given the importance of faculty out-of-class contact with students and the controversies regarding the balance of effort put into teaching and research, it is clear that studies of faculty time allocation should include all three measures—teaching, research, and advising. It is also clear that a neo-institutional perspective may provide an excellent mechanism for explaining how and why there seem to be systemic changes in faculty role performance, including use of time allocated to different aspects of the academic role, across different institutional contexts throughout the field of American higher education

Previous Research

In a cross-sectional examination of the quantity and quality of faculty work, Bowen and Schuster (1986) find that faculty in the sciences, engineering, and social sciences at universities spend roughly fifty percent less time on instructional activities than their colleagues at other types of institutions. They also note that faculty at universities spend three times the amount of time engaged in research than do their non-university counterparts These findings clearly support the idea that institutional type influences the nature of professional time allocation by members of the academic community

Most studies investigating how faculty members divide their time among their various academic responsibilities have focused on the tradeoffs between time allocated to the research role versus time spent on teaching activities Generally, three types of relationships—null, conflict, and complimentary—have been specified between teaching and research (Braxton, 1996) The null perspective assumes that these activities are unrelated and that the roles are independent of each other, one having no effect on the other In contrast, the conflict perspective contends that teaching and research are negatively related such that time and energy spent on one adversely affects the other The complimentary perspective views the teaching and research roles as being positively related to each other. Reviews of existing studies in this area have provided mixed results for all three perspectives, with the null perspective generating the strongest, but not conclusive, support (Feldman, 1987; Braxton, 1996)

However, an examination of results demonstrates that institutional type affects which of the perspectives is more likely to predominate in various institutional settings (Braxton, 1996) For example, the null perspective receives the strongest support in research universities, and both the null and complimentary perspectives have strong support in comprehensive and liberal arts institutions Evidence supporting all three perspectives have been found in doctoral institutions (Braxton, 1996) It should be noted that most of the studies reviewed by Braxton (1996) at the institutional level were done at research universities, with only two or three studies conducted at each of the other types of institutions Moreover, the most recent study involving nonresearch universities was conducted in 1984. Hence, this literature indicates the need for new studies that examine how institutional type affects the nature and performance of the faculty role. It is also important to note that none of these studies examined the influence of institutional type on faculty role performance over time, demonstrating a compelling need to study this phenomenon from a longitudinal perspective

One of the best known and most influential studies of how faculty spend their time is the work of Massy and Zemsky (1994), who describe the "academic ratchet." The authors contend that faculty members have worked to increase their discretionary time by loosening their institutional ties and obligations This results in a trend toward more faculty time and energy being focused on research and publication activities, while faculty decrease the amount of time spent actually teaching, preparing for class, grading assignments, and meeting with students. Two types of institutions—research universities and liberal arts colleges—were studied by Massy and Zemsky (1994) They found more variation with regard to class size and teaching loads in the liberal arts colleges than in the research universities However, these authors also found little difference across various disciplines within each type of institution and little difference regarding how the institutions monitored faculty time allocation Massy and Zemsky (1994) attribute their pattern of findings largely to the nature of the academic reward structure, which favors research over other types of academic responsibilities, and to the increasing professionalization of faculty work. Although the work by

Massy and Zemsky (1994) is cross-sectional and focused primarily on departments rather than institutions, it clearly suggests that there are forces in American higher education that are changing the ways that faculty spend their professional time and that there may be systematic differences among different types of institutions.

Several studies have examined the faculty reward structure as a means for understanding factors that contribute to changes in faculty role performance The results of one recent study indicate that the faculty reward structure is becoming increasingly homogenized across institutional type and disciplinary type (Fairweather, 1993a) Regardless of espoused institutional mission, Fairweather (1993a) finds that research is rewarded more than teaching He takes this finding to indicate that higher education is moving increasingly toward a single reward structure for all types of institutions and programs and that this homogenized reward structure reflects the emerging dominance of the values and structures found primarily at research universities. In a similar study, Fairweather (1993b) investigates the reasons behind the homogenization of the faculty reward structure While he finds that department chairs are more likely to value teaching than research as one moves through different levels of the Carnegie classification from research universities to liberal arts colleges, he also finds that actual rewards in terms of pay, tenure, and promotion are based almost exclusively on research productivity across all institutional types In fact, the results from both studies indicate that teaching can be a negative predictor of rewards (Fairweather, 1993a, 1993b).

While much of the literature reviewed so far has focused on teaching and research as the primary ways in which faculty spend their time, there is evidence that the amount of time faculty spend with students outside of the classroom is related to time spent on research and teaching Massy and Zemsky (1994) observe that time spent with students outside of the classroom is one area that suffers from the effects of the academic ratchet Other studies have demonstrated that although faculty have become more concerned over time about teaching and research, the perception among campus administrators is that faculty are becoming less concerned about advising students (Bowen & Schuster, 1986). Moreover, while the public debate about faculty workload continues to center around the issues of time spent on research versus time spent in the classroom (Cage, 1991, Jacobson, 1992), there is a multitude of evidence that faculty contact, formal and informal, is an important part of the educational process (e g., Astin, 1977, 1985, 1993, Endo & Harpel, 1982, Feldman & Newcomb, 1969, Pascarella, 1982; Pascarella & Terenzini, 1991; Terenzini & Pascarella, 1980)

Existing studies suggest that overall faculty productivity at the institutional level has been maximized and that attempts to reconfigure the faculty role jeopardize the existing balance among competing facets of the academic role (Olson, 1994). Yet, public sentiment (Bok, 1992; Jacobson, 1992) and empirical evidence (Dey et al , 1997) suggest that the faculty role is changing and publication productivity is becoming an increasingly larger consumer of faculty time and energy. The results from Olson's (1994) study of gross faculty productivity at doctoral and research universities indicate that there are technical and institutional constraints on improving overall productivity. Hence, when Olson's (1994) findings regarding the constraints imposed upon improving faculty productivity are considered in conjunction with Dey et al 's (1997) finding that publication productivity has increased for all institutional types over a twenty-year period, it becomes clear that further study of how changes in one area of productivity (i.e , research) affect productivity in other areas (i.e., teaching and advising)

Methodology

Three national surveys of college and university faculty provide the data for our study. The first of these surveys was conducted in 1972 by the American Council on Education (Bayer, 1973), and collected data from 53,034 respondents working at 301 colleges and universities More recent data on faculty time allocation was provided by surveys conducted in 1989 and 1992 by the Higher Education Research Institute (HERI) (Astin, Korn, & Dey, 1989, Dey, Ramirez, Korn, & Astin 1992) The 1989 HERI survey collected data from 51,574 respondents working in 432 colleges and universities, while the 1992 survey had 43,940 respondents from 344 colleges and universities. All three surveys had response rates between 49% (1972 survey) and 61% (1992 survey) Most importantly, the survey instruments were of similar design and contained identical items related to our measures of faculty time allocation

The data set for this study was created by aggregating faculty data from each of the surveys at the level of the institution, and then merging the aggregated data representing individual institutions. We included only those respondents who had faculty roles within their employing institutions To do this we eliminated all respondents who reported administration, service to clients and patients, or other duties as their principal activities at their college or university Data from the remaining respondents were then aggregated at the institutional level and merged to form a data set linking faculty data from the same institutions over time

Because the data in the 1989 and 1992 surveys were collected so close in time, we were interested in treating these separate data sets as if they were one in order to maximize the number of institutions available for the analysis We determined that this approach could be justified empirically for our measures of time allocation, given that the main dependent variables for this study are very highly correlated across these latter two survey years. For example, the simple *r* between time spent engaged in research was 0.901 between 1989 and 1992 in the sample of 106 institutions that appeared in both the 1989 survey and the 1992 survey This suggested to us that we could treat these two later cohorts of data as one cohort without introducing problems into the analysis.

There are 77 institutions represented in the 1972 survey and in either the 1989 sample or the 1992 sample (but not in both). Faculty data at these institutions were aggregated and merged to create a data set with two time points (Time 1: 1972 survey, Time 2: 1989 *or* 1992 survey). There are an additional 22 institutions that appear in all three surveys (1972, 1989, and 1992) These institutions were added to the sample for a final sample size of 99 institutions. For these latter 22 institutions, data from the 1989 and 1992 surveys were averaged to provide a single Time 2 measure for each variable in the data set Table 1 shows the description of the sample in terms of number of institutions by Carnegie type that are represented in our sample

As mentioned above, this study builds upon the findings from a study of changes in publication productivity among faculty at this sample of institutions (Dey, et al , 1997) We seek to determine the consequences of findings from that study which indicate that an increased emphasis on research and publication has occurred across the system of higher education Specifically, we examine the effect that these changes have had on the way in which faculty indicate that they spend their time. Three measures of faculty time allocation—time spent weekly teaching or preparing for teaching, time spent engaged in research, and time spent

TABLE 1
Description of Sample

Carnegie Type	Number of Institutions
Research Universities	15
Doctoral Universities	8
Comprehensive Universities	32
Liberal Arts Colleges	39
Two-Year Colleges and Specialized Institutions	5
Total	99

advising and counseling students—are used as dependent variables in this study. These items appeared as part of time diaries with identical response categories on each of the faculty surveys used to create the database in this study The teaching item was calculated by combining two separate items (time spent preparing for teaching, time spent teaching) into one larger item.

Table 2 shows the variables that were used in the analysis Control variables were used to reduce the likelihood that our inferences about the relationship of institutional type on faculty time allocation would be compromised These include the 1972 measure of time allocation, the percentage of faculty members holding the PhD, and the distribution of faculty within different disciplinary affiliations.[1] Of particular interest in this study was whether there are systematic changes in the manner in which faculty report allocating their time at different types of institutions over time For example, if we are to find support for the assertions of Massy and Zemsky (1994) regarding the "academic ratchet," we would expect to find that faculty are spending less time teaching, less time advising and counseling students, and more time engaged in re-

TABLE 2

Description of Variables Used in the Analyses

Dependent variables—Measures of faculty time allocation at Time 2
- Hours per week spent in scheduled teaching and preparing for teaching**
- Hours per week spent on research and scholarly writing*
- Hours per week spent advising and counseling students*

Control variables (Block 1)—Measures of faculty time allocation at Time 1
    - Hours per week spent in scheduled teaching and preparing for teaching**
    - Hours per week spent on research and scholarly writing*
    - Hours per week spent advising and counseling students*
- Percentage of faculty with doctoral degrees at Time 2
- Percentage of faculty in different curricular areas at Time 2
    - (Percentage of faculty holding academic appointment in the following areas Biological sciences, Business, Education, Engineering, English language and literature, Health professions, History and political science, Humanities, Fine arts, Physical sciences, Social sciences)

Primary independent variables of interest (Block 2)
- Institutional type (dichotomous variables derived from 1987 Carnegie classification, two-year colleges and specialized institutions are the omitted reference category)
    - Research universities
    - Doctoral universities
    - Comprehensive universities
    - Liberal arts colleges

*NOTE All time averages based on 9-point scale, where 1= none, 2 = 1–4, and 9 = 45 or more)

**NOTE All time averages based on the combination of two 9-point scales, where 1= none, 2 = 1–4, and 9 = 45 or more) search We used the classification system devised by the Carnegie Foundation for the Advancement of Teaching (Carnegie 1987) to formulate our measures of institutional type The Carnegie system is the most frequently used classification framework employed in studies of American higher education and is often viewed by institutional leaders as an indicator of their institution's place in the hierarchy of American higher education. The 1987 Carnegie classification groups institutions on the basis of level of degree offered as well as the comprehensiveness of their missions. The specific definitions used to create the groupings used in this study are as follows (Carnegie, 1987, p. 7):

> *Research universities* offer a full range of undergraduate degree programs, are committed to graduate education through the doctorate, and give a high priority to research In addition, they receive annually more than $12.5 million in federal support and award at least 50 PhD degrees each year
>
> *Doctoral universities* offer a full range of undergraduate degree programs and are committed to graduate education through the doctorate, awarding at least 20 PhD degrees annually in at least one discipline or 10 or more PhD degrees in three or more disciplines
>
> *Comprehensive institutions* are colleges and universities that enroll at least 1,500 students, offering more than half of their undergraduate degrees in two or more occupational or professional disciplines. The institutions typically offer graduate degrees through the masters degree.
>
> *Liberal arts colleges* are primarily undergraduate institutions that typically award more than half of their undergraduate degrees in arts and science fields (or, where occupational or professional disciplines are in the majority of degrees awarded, enroll fewer than 1,500 students and thus are too small to be classified as comprehensive)
>
> *Two-year colleges* offer certificate or degree programs leading to the associates degree, while specialized institutions offer more than half of their degrees in one specialized field

The question of the existence of systematic variations in the way in which faculty allocate their time at different types of institutions was examined in a blocked hierarchical regression model Institutional type was represented by four dummy variables representing research universities, doctoral universities, comprehensive universities, and liberal arts colleges Two-year and specialized colleges serves as the comparison category in the regression analyses

Limitations

Before turning to the results and implications, it is important to keep in mind the limitations of this study First, the 99 institutions that are represented in the data set were not selected through random sampling procedures They are a nonrandom subset of the 1972 institutional participants (which were, however, selected randomly from the population of institutions operating at the time of that survey). Although the institutions in the data set are diverse with respect to type and represent the major Carnegie institutional types, the sample does differ somewhat from known population characteristics In our sample, research and doctoral universities are somewhat overrepresented relative to the population (these institutions account for 22% of the institutions in the sample versus 6% of the population). Although these sampling irregularities may bias our estimate of the overall pattern of faculty time allocation, the analyses by institutional type that are the most important for the purpose of the present study should be unaffected However, we argue that the unique character and value of these data outweigh these concerns, because we know of no other data sets that show how individual institutions change over time with respect to faculty time allocation.

These data are also limited in terms of sample size and variable coverage and quality. The relatively small number of institutions in the data set make the multivariate analysis within finer institutional groupings difficult The Carnegie classification breaks out each of the institutional categories we use into two finer groups, differentiating, for example, the research universities into two categories according to whether or not they received more than $33 5 million in federal support. Given the limited number of cases available for analysis, we have limited our inquiry to the more general Carnegie categories, even though it is possible that interesting differences would have emerged if we had included the finer categories in our analysis Regarding variable coverage, as a secondary use of these data, the data set does not provide a completely ideal set of faculty time allocation measures. Though we believe that the measures in this data set are more than satisfactory for the purposes for which we have used them, our analyses would have been enhanced if additional time allocation measures (e.g , measures of informal out-of-class contact faculty have with students and of time spent involved in service-related activities) had been available Unfortunately, neither of these measures was included on the 1972 ACE Faculty Survey instrument.

Results

The general trends in faculty time allocation over time by institutional type are shown in Table 3 There was a general and significant increase in time spent engaged in research at all four-year institutions There was a statistically insignificant decrease in time allocated to research at two-year colleges. As we would expect, faculty at research universities report the greatest amount of time spent engaged in research, followed by faculty at doctoral universities, comprehensive universities, liberal arts colleges, and two-year colleges. Though faculty at research universities maintained their "advantage" in the time they report allocating to research, the gap is closed somewhat between them and faculty at doctoral institutions. The greatest proportional change between 1971 and 1989/92 was seen at the comprehensive universities and doctoral universities (20% and 15%, respectively).

Our findings provide rather compelling evidence refuting the assertions of many critics of higher education that faculty are spending less time engaged in teaching. Across the system of higher education, there

TABLE 3

Time Allocation by Institution Type Over Time

A. Time Allocation	*Advising*			*Teaching*			*Research*		
Carnegie Type	Time1 Mean *SD*	Time2 Mean *SD*	Sig	Time1 Mean *SD*	Time2 Mean *SD*	Sig	Time1 Mean *SD*	Time2 Mean SD	Sig
All Institutions	2.65	2.47	***	7.79	8.50	***	2.72	2.98	***
	0.22	0.17		0.79	0.93		0.93	0.99	
Research Universities	2.66	2.40	***	7.08	6.96		4.41	4.70	**
	0.12	0.13		0.69	0.50		0.53	0.66	
Doctoral Universities	2.60	2.44		7.26	7.70	*	3.29	3.88	***
	0.19	0.18		0.88	0.63		0.86	0.63	
Comprehensive Universities	2.70	2.63	***	7.90	8.62	***	2.57	2.88	***
	0.26	0.18		0.69	0.48		0.43	0.42	
Liberal Arts Colleges	2.62	2.46	***	7.95	9.04	***	2.19	2.37	***
	0.24	0.17		0.65	0.53		0.40	0.41	
Two-Year Colleges	2.59	2.50		8.73	9.58	*	1.69	1.60	
	0.18	0.26		0.77	0.56		0.32	0.31	

B. PATTERNS OF CHANGE OVER TIME

	Change Over Time			*Percentage Change Over Time*		
	Advising	Teaching	Research	Advising	Teaching	Research
All Institutions	–0.18	0.71	0.26	–0.07	0.08	0.09
Research Universities	–0.26	–0.12	0.29	–0.11	–0.02	0.06
Doctoral Universities	–0.16	0.44	0.59	–0.07	0.06	0.15
Comprehensive Universities	–0.07	0.72	0.31	–0.03	0.08	0.20
Liberal Arts Colleges	–0.16	1.09	0.18	–0.07	0.12	0.08
Two-Year Colleges	–0.09	0.85	–0.09	–0.04	0.09	0.01

NOTE. Advising and research times averages based on a 9-point scale, where 1 = none, 2 = 1–4, and 9 = 45 or more. Therefore, the range of these items is between 1 and 9. Teaching time averages were based on the combination of two 9-point scales (reflecting both class preparation time and scheduled teaching time). The individual items uses a 9-point scale identical to the one for the advising and research items, where 1 = none, 2 = 1–4, and 9 = 45 or more. Hence, for the variable measuring time spent teaching, the range is between 2 and 18.

$^{***}p < 0.001$ $^{**}p < 0.01$ $^{*}p < 0.05$

was a significant increase in the amount of time faculty reported allocating to teaching and preparing for teaching Faculty at doctoral, comprehensive, liberal arts and two-year institutions reported statistically significant increases in time spent teaching and preparing for teaching between 1972 and 1989/92. However, faculty at research universities reported a statistically nonsignificant drop in time spent teaching As we would expect, faculty at two-year colleges report that they spent the most time teaching and preparing for teaching, followed by liberal arts colleges, comprehensive universities, doctoral universities, and research universities. The greatest proportional increase in teaching time occurred at liberal arts colleges (12%).

These descriptive findings suggest that faculty at nearly every type of institution are spending more time engaged in research and more time teaching and preparing for teaching. Given that time is not a limitless commodity, we might ask from what aspect of their jobs faculty are taking this added time that they report they spent engaged in teaching and research It is possible that the extra time that faculty devoted to research resulted from reduced involvement in service-related activities Because we have no measure of the time that faculty spent involved in service in 1972, we are unable to determine this. Our findings do suggest that at least some of this time is coming from time that faculty spent advising students Across all institutions, there was a statistically significant decrease in the amount of time faculty spent advising and counseling students. Although there is a pattern of decrease within every type of institution, these decreases are only statistically significant at research universities, comprehensive universities, and liberal arts colleges. Faculty at research universities report spending the least amount of time advising students, followed by faculty at doctoral universities, liberal arts colleges, two-year colleges, and comprehensive universities. The greatest proportional decrease occurred for faculty at research universities (11%), followed by doctoral universities and liberal arts colleges (7%).

As with the findings from an earlier study of publication productivity (Dey, et al , 1997), the patterns from this study of faculty time allocation suggest that forces of accumulative advantage and institutional isomorphism are operating within the system of higher education. Although the gap in the time faculty report that they spent engaged in research has been narrowed somewhat between research universities and doctoral and comprehensive institutions between 1972 and 1992, the research universities still maintain a clear advantage. In their efforts to emulate the model of their colleagues at the research universities, doctoral and comprehensive universities show the greatest proportional increases in the time faculty spent on research activities. However, our findings suggest that they have not done this at the expense of their time spent teaching; they have done this while also increasing the amount of time spent teaching and preparing for teaching Research universities, however, have increased the time their faculty spend engaged in research while managing not to increase the time that they spend teaching. Moreover, these changes occur as faculty across the system of higher education are spending less time engaged with students outside of the classroom Specifically, research universities, comprehensive universities, and liberal arts colleges report spending statistically significant less time advising and counseling students outside of class

In Table 4, we summarize the findings of the multivariate analyses that predict the three dependent variables used in this study The primary purpose of these regression analyses is to determine the effect that institutional type has on each of the dependent variables in our study Before we examine the regression coefficients associated with the institutional type variables, it is important to consider the effect that the control variables have in our analysis These control variables include measures of how faculty spent their time in 1972, the percentage of faculty with PhDs at each institution, and the percentage of faculty appointed in various disciplinary areas at each institution.

Our first regression equation predicts the amount of time spent engaged in research in 1989/92. As we would expect, the 1972 measure of this variable is a significant predictor (β = 0 30) of this measure in 1989/92. Institutions with higher percentages of faculty holding doctorates are likely to have faculty who report spending greater amounts of time engaged in research (β = 0.18) Four of the disciplinary measures also serve as significant predictors of the outcome in the regression equation The findings indicate that research universities and doctoral universities are likely to have faculty who report spending more of their time engaged in research (β = 0 42 for research universities and β = 0.30 for doctoral institutions). This regression model accounts for 92 3% of the variance in the dependent variable.

The second regression equation predicts change in the amount of time spent engaged in teaching and teaching-related activities The 1972, measure of time spent engaged in teaching serves as a significant positive predictor of the 1989/92 measure Unlike the first equation, the percentage of faculty holding PhDs is not a predictor of time spent engaged in teaching None of the disciplinary measures serve as significant predictors of the dependent variable. However, three of four measures of institutional type do serve as predictors of the amount of time faculty report spending teaching and preparing for teaching in 1989/92 In fact, 64 percent of the variance in our dependent variable is explained by the

TABLE 4

Regression Results for Patterns of Faculty Time Allocation at Time 2 (1989/92)

	Advising		*Teaching*		*Research*	
Model 1	*b*	β	*b*	β	*b*	β
1972 Time Allocation	0.00	0.06	0.35	0.30**	0.32	0.30**
Percentage of Faculty with PhDs	0.19	0.22	0.38	0.09	0.86	0.18**
Percentage of Faculty in Various Disciplinary Areas						
Biological Sciences	−0.31	−0.05	−4.34	−0.13	3.65	0.10*
Business	−0.52	−0.16	1.39	0.08	0.21	0.01
Education	0.22	0.08	−0.39	−0.03	0.54	0.03
Engineering	−0.38	−0.15	−0.57	−0.04	2.58	0.18**
English Language/Literature	0.36	0.09	1.31	0.06	0.75	0.03
Fine Arts	−0.35	−0.11	0.77	0.04	1.11	0.06
Health	−0.31	−0.12	0.00	−0.01	0.82	0.06
History/Political Science	−0.21	−0.04	−0.20	−0.01	0.93	0.04
Humanities	−0.43	−0.15	−1.18	−0.08	1.99	0.12*
Physical Sciences	−0.50	−0.14	0.24	0.01	0.46	0.02
Social Sciences	−0.00	−0.02	0.49	0.03	2.03	0.10*
Carnegie Classification						
Research Universities	−0.17	−0.35	−2.06	−0.80***	1.14	0.42***
Doctoral Universities	−0.13	−0.21	−1.67	−0.49***	1.09	0.30***
Comprehensive Universities	−0.00	−0.14	−0.82	−0.42**	0.15	0.07
Liberal Arts Colleges	−0.12	−0.34	−0.40	−0.21	−0.00	−0.01
Intercept	5.26		13.60		−18.19**	
*R*²	0.149		0.801***		0.923***	
Model 2						
1972 Time Allocation	0.00	0.05	0.35	0.39***	0.33	0.31***
Percentage of Faculty with PhDs	0.19	0.22	0.36	0.08	0.86	0.18**
Percentage of Faculty in Various Disciplinary Areas						
Biological Sciences	−0.34	−0.05	−4.65	−0.14*	3.63	0.10*
Business	−0.46	−0.14	2.04	0.12	0.14	0.01
Education	0.21	0.07	−0.52	−0.03	0.55	0.03
Engineering	−0.41	−0.16	−0.89	−0.07	2.61	0.18**
English Language/Literature	0.37	0.09	1.51	0.07	0.73	0.03
Fine Arts	−0.33	−0.10	1.02	0.06	1.08	0.06
Health	−0.31	−0.12	−0.00	−0.00	0.81	0.05
History/Political Science	−0.15	−0.03	0.40	0.02	0.84	0.03
Humanities	−0.46	−0.16	−1.53	−0.10	2.02	0.13**
Physical Sciences	−0.47	−0.13	0.49	0.03	0.41	0.02
Social Sciences	−0.00	−0.02	0.21	0.01	2.05	0.10*
Carnegie Classification						
Doctoral-granting Universities (research and doctoral)	−0.16	−0.38	−1.88	−0.86***	1.10	0.47***
Comprehensive Universities	−0.00	−0.13	−0.79	−0.40***	0.15	0.07
Liberal Arts Colleges	−0.16	−0.38	−0.39	−0.21*	−0.00	−0.01
Intercept	5.05		11.03		−16.86*	
*R*²	0.147		0.794***		0.923***	

***p < 0.001 **p < 0.01 *p < 0.05

dummy variable measuring research universities Research universities (b = –0 80), doctoral universities (b = –0 49), and comprehensive universities (b = –0 42) are significantly less likely to have faculty who account for increases in time spent teaching than are liberal arts institutions or two-year colleges Over half of the explained variance is accounted for by our measures of institutional type. The regression model explains 80 1% of the variance in time spent teaching

The last regression equation is designed to predict change in the amount of time spent by faculty advising and counseling students. As we reported above, there is little differentiation in the amount of time faculty allocate to these activities among the different Carnegie types. All institutions have faculty who spend relatively little time advising and counseling their students. Moreover, each Carnegie type has faculty who report spending less time advising students in 1989/92 than they did in 1972. None of the variables that we included in the equation serve as significant predictors of the dependent variable Because there is so little variance in this measure of time allocation, the regression model explains less than 15% of the variance in the 1989/92 measure of time faculty spent in this role with their students Our earlier study of changing patterns of publication productivity used two regression equations to estimate differences based upon institutional type (Dey, Milem, & Berger, 1997) Hence, we replicated these analyses in this study of faculty time allocation and found that Model 2 (in which doctoral and research universities were collapsed into one category) revealed a pattern of findings that were consistent with those in Model 1.

Given that time is a limited commodity, coupled with the increases in both time spent in teaching and research, we decided to investigate the relationship between the three measures of faculty time allocation to see if changes in one affect one or both of the other two measures. We did this in two ways First, we examined the bivariate correlational relationship among the change scores (the Time 1 measure minus the Time 2 measure) for each of the three dependent variables. There was only one significant relationship between the change in time spent on teaching-related activities and the change in time spent advising and counseling students $r = 0\ 28$) None of the other correlations were statistically significant, and even the one statistically significant relationship is not very strong. Second, we included the variables for the two change measures that did not serve as the dependent variables in each regression equation and ran new regression equations to determine if change in the other areas of time allocation predicted change in the dependent variables. The results were inconclusive, because the addition of the change measures explained almost no additional variance in any of the regressions and slightly reduced the predictive power of the variables representing institutional type.

This finding suggests that different forces are affecting various aspects of the faculty role in different ways Despite Olson's (1994) assertion that an increase in teaching load negatively affects research productivity and vice-versa, there is little evidence in these findings that changes in time spent on one part of the faculty role directly affect other areas of academic responsibility. In contrast, there seems to be a very weak connection among these measures, suggesting that they are all effects of other processes and not interconnected causes of changes in overall time allocation

Discussion

The results of our study provide evidence of institutional isomorphism in higher education as institutions are becoming more similar in their patterns of faculty time allocation, particularly regarding time spent engaged in research This can be seen in the time that faculty at four-year institutions report spending engaged in research, with the greatest percentage of change in time spent engaged in research being found at the doctoral and comprehensive institutions in our sample There are statistically significant increases in time spent engaged in research evident at the research universities and liberal arts colleges as well It is somewhat ironic that these changes are accompanied by a pattern of increase in the amount of time spent teaching and preparing for teaching at all institutional types except for the research universities

Perhaps the most troubling of the findings from our study involves the amount of time that faculty across the system of higher education report that they spend advising and counseling students Although we see a trend toward increased time doing research and even teaching to a large extent, there is evidence that time spent interacting with students in more informal settings is what may be suffering. Our findings indicate that between 1972 and 1989/92 faculty have reduced the already modest amount of time that they spend engaged advising and counseling students. This trend is especially troubling when we consider the evidence that documents the important role that informal contact with faculty has on a wide range of student outcomes (e.g , see Astin, 1977, 1993; Feldman & Newcomb, 1969, Pascarella & Terenzini, 1991)

The lack of variance in the time that faculty report spending counseling and advising students at either time point, coupled with the relatively meager amount of change in this measure over twenty years, indicate that this could be an institutionalized process. The relative stability of this activity across both time and institutional type suggests that this one area of "faculty productivity" is heavily defined and constrained by institutional factors, rather than by technical forces (Olson, 1994) In other words, professors—through their own experiences as undergraduates, graduate students, and faculty members—have observed a common pattern of time allocated by other faculty to this aspect of the academic role This has created common mental models that professors consciously or unconsciously mimic as taken-for-granted ways of doing things (an example of mimetic mechanisms). These observations have been reinforced by common patterns of normative socialization in graduate schools (an example of a normative mechanism) and by the nature of the academic reward system that focuses primarily on research and, to a lesser extent, teaching activities (an example of a regulative mechanism)

Our study lends only partial support to the assertions of Massy and Zemsky (1994) regarding the "academic ratchet." The findings from our analyses suggest that the relationship among teaching, research, and advising is much more complex than Massy and Zemsky have previously argued Although our findings do indicate support for the argument that faculty spend relatively small amounts of time advising and counseling students outside of class, they contradict the assertion that faculty are spending less time teaching and preparing for teaching In fact, the faculty at institutions in our sample indicated that they spent more time engaged in research and in teaching between 1972 and 1989/92 Based on these findings, one might assert that faculty actually have less discretionary time now than they did in 1972.

Although this study examined changes in time allocation at the institutional level, the data were still originally gathered at the individual level and subsequently aggregated by institution Hence, although neo-institutional theory provides a framework for understanding how institutions become isomorphic, we are still left without explicit explanations about how these conforming institutional pressures influence individual faculty decisions to allocate their time among teaching, research, and advising activities. A full explanation of the process by which institutionalized organizational processes become translated into individual patterns of behavior is beyond the scope of this article However, the findings from this study suggest that such mechanisms be the focus of future studies if we are to learn more about institutionalized changes in faculty behavior

Our final observation relates to what our findings tell us about educational policy and practice Our study's findings suggest that there is a large contradiction between what we say we value in higher education and what we actually reward. Although we state publicly that we want to create educational environments that contribute to better outcomes for students, we do not reward faculty in ways that promote these better outcomes Specifically, out-of-class contact does not appear to be rewarded in higher education institutions. In fact, as Fairweather (1993a, 1993b) has established, our reward structure is one that rewards faculty for doing things that prohibit them from engaging in the types of contact with students that we know promote more positive outcomes.

Notes

[1] A concern was raised by one of the reviewers of our manuscript about the possibility that differences in the aggregate amount of time engaged in research at the institutional level could be influenced by differences in the tenure rates for faculty at Time 1 and Time 2 at each institution To address this possibility, we tested to see if there were significant differences in the mean proportion of faculty who were tenured within each institution at T1 and T2. The *t*-tests that we conducted revealed that there were not any significant differences.

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Exploring the Scholarship of Teaching

Ever since Boyer (1990) introduced his notion of the scholarship of teaching, its precise meaning, implications (Menges & Weimer, 1996), and assessment (Glassick, Huber, & Maeroff, 1997) have remained unresolved issues In this article we explore the scholarship of teaching as both learning and knowing about teaching and make suggestions for how it can be demonstrated and assessed. We first provide a brief background to the notion of scholarship We support the view that the development of scholarship in teaching is a process comprised of reflection on experience-based knowledge and research-based knowledge on teaching. Secondly, in order to develop a model that explains how faculty develop scholarship in teaching, we use Mezirow's (1991) concepts of content, process, and premise reflection as a framework to derive three essential domains of knowledge about teaching—instructional, pedagogical, and curricular Thirdly, we combine content, process, and premise reflection and Habermas's (1971) instrumental, communicative, and emancipatory knowledge within the instructional, pedagogical, and curricular domains to suggest that developing scholarship in teaching is comprised of nine distinct kinds of learning. We illustrate how each of the nine kinds of learning is consistent with the premise that developing scholarship in teaching involves faculty reflecting on research-based knowledge as well as their own experience-based knowledge (Menges & Weimer, 1996) in ways that can be peer re-

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viewed. Fourthly, we suggest possible indicators for the nine components of scholarship Finally, we examine our model in relation to standards of scholarly work (Glassick, Huber, & Maeroff, 1997; Merton, 1973)

Background

Since Boyer (1990) and Rice (1991) first introduced the notion of the scholarship of teaching, a considerable literature has been developing (Cunsolo, Elrick, Middleton, & Roy, 1996; Diamond & Adam, 1993, Edgerton, Hutchings, & Quinlan, 1991; Kreber & Cranton, 1997, Menges & Weimer, 1996, Morehead & Shedd, 1996; Paulsen & Feldman, 1995, Taylor, 1993, Richlin, 1993, Weimer, 1992). Based on this literature and our experience as faculty developers, we distinguish three perspectives.

The first perspective on the scholarship of teaching is parallel to the traditional conceptualization of scholarship as discovery research in that faculty conduct research and create visible products such as journal articles, conference presentations, or textbooks on teaching in their discipline. Research on teaching and learning is viewed as one important aspect of the scholarship of teaching This perspective is similar to Boyer's (1990) and Rice's (1991) vision of the scholarship of teaching that includes: knowledge of effective ways to represent subjects; the ability to draw the various strands of the field together in a coherent and purposeful way, and cognizance of ways that make the subject more accessible, interesting, and meaningful to students. Whether or not the scholar of teaching is also an effective teacher, though presumably taken for granted by Boyer and his followers, is not the major focus for proponents of this perspective Teaching effectiveness is inferred from the product that was created; it is the product that is the indicator of scholarship

In the second perspective, the scholarship of teaching is equated with excellence in teaching, as evidenced by teaching awards or outstanding evaluations of teaching The assumption underlying this perspective is that excellent teachers—as identified, for example, by student ratings or peer reviews—hold extensive knowledge about teaching and learning. Although this may be the case, particularly with respect to experience-based implicit knowledge, excellent teachers may or may not be able to articulate what they do in educational terms.

More recently, a third perspective has emerged. Scholars of teaching take a scholarly approach to teaching by applying educational theory and research to their practice (Menges & Weimer, 1996) A wisdom of practice is developed through a combination of reflection on theory and research and experience-based knowledge on teaching

All three perspectives make an important contribution to our understanding of the scholarship of teaching. However, the first and second perspective, by emphasizing outcomes or products in the form of publications or teaching evaluations, may be ignoring the process by which faculty learn about teaching (Kreber, 1999, Kreber, 2000) A conceptualization of the scholarship of teaching that includes the demonstration of knowledge about teaching but pays less attention to how that knowledge is acquired is valuable but gives us little guidance in how to help faculty develop their practice The third perspective, perhaps inadvertently, implies that the scholarship of teaching involves reflection upon and application of work done by those researchers who specialize in education as a discipline. Although this is indeed important, we suggest the scholarship of teaching also include the acquisition of knowledge about teaching through reflection on practice and research on teaching in faculty's own disciplines The third perspective is also less concerned with the question of how scholarship can be demonstrated and assessed.

We contend that the scholarship of teaching includes both ongoing learning about teaching and the demonstration of teaching knowledge As such, it is of critical importance in faculty development and evaluation In order to design a model of the scholarship of teaching in which faculty are viewed as adult learners, we used deductive analysis based on Mezirow's (1991) theory of transformative learning Our argument is built on two presuppositions. Following transformative learning theory, we first accept the notion that knowledge is constructed through three levels of reflection—content, process, and premise Second, also in line with transformative learning theory that, to a large extent, is informed by the work of German sociologist and critical theorist Jurgen Habermas, we accept that there are three kinds of learning—instrumental, communicative, and emancipatory

Kinds of Reflection

Mezirow (1991, pp 104–105) proposes that individuals learn and develop through three levels of reflection Content reflection focuses on the description of the problem Process reflection focuses on the strategies and procedures of problem solving, the assessment of the adequacy of our efforts, and the similarities and differences between what we are currently experiencing and our prior learning In premise reflection, we question the merit and functional relevance of the question (why is this an important issue in the first place?)

Mezirow's levels of reflection prove to be useful on two levels: firstly, to arrive at a knowledge system of teaching consisting of three different domains (Kreber & Cranton, 1997) and secondly, to show how knowledge in each knowledge domain is constructed. We now turn to the three knowledge domains

Domains of Teaching Knowledge Derived from the Kinds of Reflection on Teaching

The first step in identifying a knowledge system of teaching is to identify specific aspects of knowledge about teaching Here we used the literature, our own experience as teachers, and our work as faculty developers to list specific components of teaching derived from content, process, and premise reflection.

Content reflection When we engage in content reflection on teaching, we try to describe the teaching process. We may ask, What are the various actions involved in teaching? Responses to this question include such items as planning courses, employing instructional strategies, and evaluating students. The question seems to address primarily technical knowledge about course design, instructional materials, and teaching methods. This kind of knowledge about teaching, arrived at through content reflection, is similar in nature to the knowledge system to which Weinert, Schrader, and Helmke (1990) referred as "knowledge of instructional techniques" (p 172). We call this *instructional knowledge* (Kreber & Cranton, 1997) Examples of instructional knowledge derived from content reflection include:

- knowing how to develop teaching materials such as overheads
- knowing how to facilitate discussion
- knowing a variety of instructional methods
- knowing how to organize or sequence instruction
- knowing how to prepare a lecture
- being able to write learning objectives
- knowing how to construct good tests

Process reflection. When engaging in process reflection we question the adequacy of the instructional knowledge by focusing our reflection on the strategies or procedures which led to them In other words, we may ask, How is instructional knowledge created? We concluded that any form of instructional design or teaching strategy is based on an either formal (explicit) or lay (implicit) theory of learning. An example of a formal theory would be Gagné's (e.g., Gagné & Briggs, 1979) task analysis—a specific instructional sequencing strategy that works from the assumption or theory that learning is facilitated when new information is linked to prior knowledge. An example of a lay theory would be a teacher's observation that students are more motivated when the instructional strategies are varied This knowledge about how people learn and how this learning can be facilitated, we label *pedagogical knowledge* (Kreber & Cranton, 1997) Pedagogical knowledge includes an understanding of learning style, cognitive style, the cognitive processes involved in learning, and group dynamics Pedagogical knowledge is concerned with how to teach the content of the discipline, how to assist students in solving the learning tasks associated with understanding concepts within the discipline, and how to facilitate critical thinking and self-directed learning beyond the discipline It is inclusive of Shulman's (1987) notions of subject matter (or discipline) knowledge and pedagogical content knowledge. It also encompasses what Weinert et al (1990) labelled "diagnostic knowledge" (p 172), which "includes general knowledge about learners of given age ranges . . ., their ability levels and learning difficulties, as well as knowledge about the particular strengths and weaknesses of the entire class and of individual students" (p. 172). Examples of pedagogical knowledge derived from process reflection include

- knowing how to motivate students with different learning styles
- knowing when to use various teaching materials
- being able to give an interesting lecture
- knowing how to facilitate collaboration among students
- being able to help students overcome learning difficulties
- being able to encourage students to think critically
- being aware of specific techniques for fostering learning
- knowing when and how to provide meaningful feedback
- being able to judge the quality of specific techniques

Premise reflection. When engaging in premise reflection on teaching we question the merit and functional relevance of teaching. We ask why we teach the way we teach and thereby engage in critical reflection on our practice. We examine the goals and rationale for a course or program, try to understand how courses fit together to form a program, and examine the views we hold on the purpose of higher education We call this *curricular knowledge* (Kreber & Cranton, 1997). Examples of curricular knowledge derived from premise reflection include:

- being able to judge the quality of course goals
- being able to explain how a course fits into the existing program

- knowing the contributions that a course may make to students' existing knowledge
- being able to articulate how a course may affect students' learning skills

This first phase of our analysis is illustrated in Figure 1 Instructional, pedagogical, and curricular knowledge are proposed as three qualitatively different yet interrelated domains of knowing about university teaching (Kreber & Cranton, 1997). Instructional knowledge is concerned with the strategies we use in teaching, pedagogical knowledge is concerned with understanding student learning, curricular knowledge is concerned with why we teach the way we teach

This classification system is not unrelated to others proposed in the literature Shulman (1986) also distinguishes among three kinds of knowledge in teaching, which he labels subject matter knowledge, pedagogical knowledge, and curricular knowledge Similarly, Rice (1991) identifies three elements of teaching synoptic capacity or academic content knowledge, pedagogical content knowledge, and knowledge about student meaning making We agree that subject matter knowledge is integral to the construction of knowledge about teaching; it is implied in our understanding of pedagogical knowledge However, our understanding of pedagogical knowledge is not restricted to knowing how to

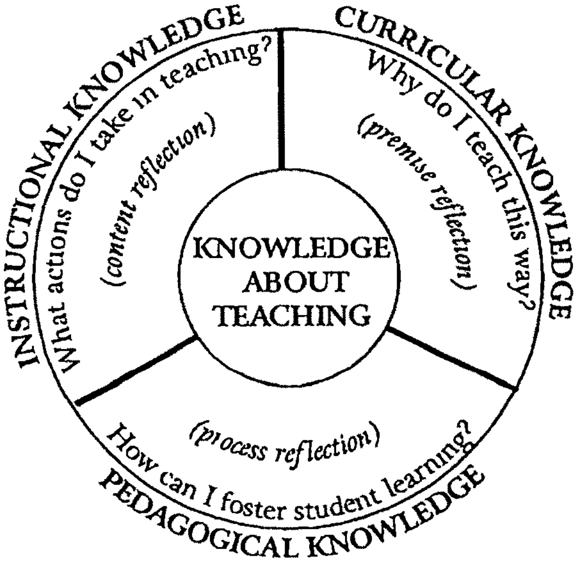


FIG 1 Proposed Knowledge System of Teaching (Kreber & Cranton, 1997)

teach the content and reasoning processes of the discipline, but it also includes knowledge about general reasoning skills. Pedagogical knowledge in our model is inclusive of Rice's (1991) notion of knowledge about student meaning making. Shulman (1986) refers to curricular knowledge as being about how a particular field is organized and packaged for instruction. Taking a slightly different position, we define curricular knowledge as encompassing knowledge about the purposes, goals, and rationale for a program or course.

Kinds of Learning

So far we have used the concepts of content, process, and premise reflection to derive and label instructional, pedagogical, and curricular knowledge about teaching. How do faculty construct instructional, pedagogical, and curricular knowledge? To address this question, we turn back to transformative learning theory (Mezirow, 1990, 1991). Following Habermas's (1971) theory of knowledge-constitutive interests, Mezirow distinguishes among three kinds of learning: instrumental, communicative, and emancipatory. As we propose that these three kinds of learning also play an important role in the scholarship of teaching, we will turn to them next.

Although Habermas never discusses "learning" as such, it seems important to highlight the influence his work had on transformative learning theory. Ewert (1991), in an excellent article on Habermas's influence on educational literature, gives Mezirow credit for his application of Habermas's theory to education, particularly the education and learning of adults.

Habermas's (1971) position is that knowledge is rooted both in historical and existing social structures, is hence historically and socially constructed and directly linked to human interests, means of social organization, and past, present, and future problems facing society (Ewert, 1991). According to Habermas, the three basic human interests we hold, our interest in controlling nature (the technical interest), social harmony (the practical interest), and individual growth (the emancipatory interest), each have their origin in a different problem related to human survival. He argues that "knowledge-constitutive interests can be defined exclusively as a function of the objectively constituted problems of the preservation of life that have been solved by the cultural form of existence as such" (Habermas, cited in Ewert, 1991, p. 347). The three human interests, the technical, practical, and emancipatory, develop in three different social media: work, interaction (through language), and relations of power. These media in turn are the conditions for the development of three corresponding forms of science the empirical-analytic, the interpretive or hermeneutic, and the critical The knowledge generated through these sciences is instrumental, practical (understanding), and emancipatory, respectively.

The first human interest, the technical, is to control and manipulate our environment The domain of learning is instrumental It "centrally involves determining cause-effect relationships and learning through task-oriented problem solving (Mezirow, 1991, p 73) Though Habermas does not categorically reject instrumental rationality, he is critical of its universal application to all forms of knowledge Instrumental rationality, with its reliance on empirical evidence to prove the validity of an assertion, is not suited to address many of the moral and social problems society faces His major purpose, which runs as a general theme throughout his work, is the development of a theory of comprehensive rationality, through which questions of control of the physical and social world as well as questions of values can be intelligently addressed

In line with Habermas, we suggest that when faculty learn about teaching, they encounter problems that cannot be solved through instrumental rationality alone However, we suggest that when faculty learn to predict learning events from teaching events, based both on research and their own experience, they are engaged in instrumental learning

The second human interest, the practical, is to understand others, including our social and cultural norms "Its purpose is communication learning to understand what others mean and to make ourselves understood as we attempt to share ideas through speech, the written word" (Mezirow, 1991, p 75), and interactions with others Rational action is seen as arriving at a common understanding or consensus about what is valid knowledge on the basis of existing social norms and moral understandings Habermas (1971) criticizes the interpretive sciences as relying too much on the subjective understanding of the people involved in the interaction whose own perceptions and interpretations may be questionable due to distorted social and self-knowledge Though the interpretive sciences establish the subjective meaningfulness of a social context or reality for the people within in, it does not concern itself with the question as to how this social reality has come about, which itself might be the result of distorted knowledge Consequently, Habermas does not reject the interpretive sciences as such but argues against subjective meaning as the basis of a social science or theory of rationality, because it itself might be ideologically distorted (Ewert, 1991).

In line with Habermas, we suggest that there are important aspects of learning about teaching that would not occur on the basis of subjective understanding and consensus within a given social context but involve a critical analysis of how certain norms and conditions have come about. Nevertheless, we propose that much of the scholarship of teaching falls into this second domain—understanding our learners, learning how to interact with learners in our discipline, and learning about teaching through communicating with others

The third human interest, the emancipatory, is to grow and to develop and to free ourselves from coercion, self-imposed constraints, as well as reified social forces and institutions, through rational action based on critical reflection. The knowledge that this interest generates, through both a critique of knowledge as well as a critique of ideology, is emancipatory. The critique of knowledge is aimed at the limitations of self-knowledge that might be distorted as a result of having internalized social constraints The critique of ideology is aimed at uncovering historical roots of domination and ideological indoctrination on thought and action. From this perspective, emancipatory knowledge is generated through thought and action The goal is to overcome the limitations of self-knowledge and the social constraints on one's thoughts and actions Mezirow (1991) argues that in emancipatory learning "knowledge is gained through critical self-reflection, . . the form of inquiry in critical self-reflection is appraisive rather than prescriptive or designative" (Mezirow, 1991, p 87).

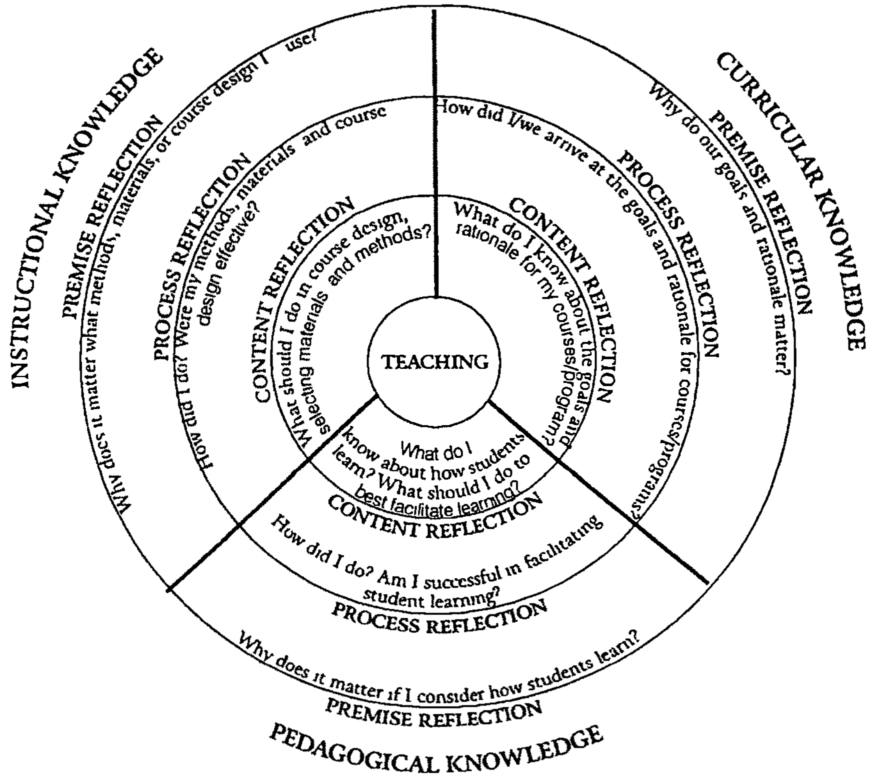
We propose that important aspects of learning about teaching belong in this domain. Often faculty are constrained in their knowledge of teaching by not being aware of alternatives and options or by not understanding the nature of the constraints of the higher education systems within which they work. When they critically question why they do what they do, faculty engage in emancipatory development.

Developing a Model of Teaching Scholarship

From transformative learning theory we understand that learning can be viewed as instrumental, communicative, or emancipatory Faculty who are acquiring instructional, pedagogical, and curricular knowledge are engaging in one or more of these kinds of learning

Constructing Knowledge in Each Domain

Mezirow's transformative learning theory can now be reapplied to examine the process of constructing instructional, pedagogical, and curricular knowledge Figure 2 illustrates this process. Faculty can engage in content, process, and premise reflection on instructional, pedagogical, and curricular knowledge as they develop scholarship in teaching. This yields a 3 x 3 matrix representing nine components of the scholarship of


INSTRUCTIONAL KNOWLEDGE
PREMISE REFLECTION
Why does it matter what methods, materials, or course design I use?
PROCESS REFLECTION
How did I do? Were my methods, materials and course design effective?
CONTENT REFLECTION
What should I do in course design, selecting materials and methods?
TEACHING
CURRICULAR KNOWLEDGE
PREMISE REFLECTION
Why do our goals and rationale matter?
PROCESS REFLECTION
How did I/we arrive at the goals and rationale for courses/programs?
CONTENT REFLECTION
What do I know about the goals and rationale for my courses/program?
CONTENT REFLECTION
What do I know about how students learn? What should I do to best facilitate learning?
PROCESS REFLECTION
How did I do? Am I successful in facilitating student learning?
PREMISE REFLECTION
Why does it matter if I consider how students learn?
PEDAGOGICAL KNOWLEDGE

Instrumental and communicative learning Process and content reflection on instructional and pedagogical knowledge

Communicative learning Process and content reflection on curricular knowledge

Communicative and emancipatory learning Premise reflection on curricular knowledge

Instrumental, communicative and emancipatory learning Premise reflection on instructional and pedagogical knowledge

FIG 2 A Model of the Scholarship of Teaching

teaching. Each of these nine components can be characterized by some combination of instrumental, communicative, and emancipatory learning processes. That is, learning about teaching can be instrumental, communicative, or emancipatory, or some combination of the three

To illustrate, we take examples from the instructional domain of knowledge A faculty member, during content reflection, may ask, What should I do to develop good teaching methods? She may decide to keep a log of methods as she tries them, discuss alternative methods with students or colleagues, or read research articles on the effectiveness of various methods The nature of this faculty member's learning is both instrumental and communicative. When she keeps a log of methods (experience-based reflection) and consults the research (research-based reflection), she is engaged in instrumental learning in that she is attempting to predict learning from teaching events When she discusses alternatives with her colleagues, she is involved in communicative learning.

If a faculty member reflects on the process in instructional knowledge, he may ask, How did I do? Were my methods effective? He may decide to collect data on students' perceptions of the teaching methods, ask a colleague to review his course outline, or compare the results of research on a specific teaching method to the results obtained in his own classroom. The nature of his learning is again both instrumental and communicative He is constructing knowledge by attempting to predict how students will respond to teaching methods and through interactions with others.

When a faculty member engages in premise reflection on instructional knowledge, she asks, Why does it matter what methods I use? She may experiment with alternatives and check out the results, write a critique of an article or book on teaching methods, or challenge the departmental or institutional norms and values regarding teaching methods Her learning may be instrumental, communicative, and emancipatory. She is still attempting to predict if teaching methods influence learning, which is instrumental in nature; she is engaged with understanding social norms, an aspect of communicative learning; she may, through her critical questioning, develop a more open and discriminating perspective on teaching methods, an attribute of emancipatory learning

As can be seen in Figure 2, the same combination of instrumental, communicative, and emancipatory learning processes also characterizes learning within the domain of pedagogical knowledge. For curricular knowledge, however, which is concerned with the goals, purposes, and rationale of our teaching practice, courses, and programs, we suggest that faculty engage primarily in communicative and emancipatory learning. Curricular goals and rationale are socially constructed Even when the purpose of a program is technical training, it is a social process that has led us to accept this as a goal of higher education.

In all learning about teaching, faculty use both experience-based and research-based knowledge Their drawing on their personally constructed wisdom of practice and research findings are integral to the construction of valid knowledge about teaching. Following Habermas's (1981) work on communicative competence, Mezirow (1991) emphasizes that "we understand the meaning of a statement when we know the conditions under which a particular statement is true"(p 97) and that "validity testing becomes crucial to establishing meaning" (p. 97). Validity testing is critical for developing scholarship in teaching. Faculty construct valid knowledge about teaching when they, for example, know under what conditions the results of published research on teaching have applicability in their classroom, under what conditions the literature on teaching tips is helpful, and under what conditions their teaching practices enhance student learning. The ways faculty may test the validity of their knowledge varies with whether they are involved in instrumental, communicative, or emancipatory learning As they engage in instrumental learning they might examine their assumptions by testing a particular hypothesis empirically and then comparing their results to other educational research to draw valid conclusions. As they engage in communicative or emancipatory learning they might subject their assumptions to critical scrutiny by becoming involved in discourse with students, colleagues, faculty developers or researchers of teaching and learning Because "most learning involves both instrumental and communicative aspects" (Mezirow, 1991, p 80), which, as we tried to show in Figure 2, is also true for the scholarship of teaching, dialogue with others with the goal of reaching an understanding of the conditions under which a certain claim is true, is an essential, yet not sufficient, aspect of validity testing in the development of scholarship in teaching

In the next section we examine how the nine components of scholarship in teaching may be demonstrated

Indicators of Scholarship

How can we recognize scholarship of teaching in practice? How would a faculty member demonstrate scholarship in teaching in a promotion and tenure application? How would a committee identify a scholar of teaching? How would a faculty developer go about assisting a faculty member to enhance her scholarship of teaching? In Table 1 we propose some indicators for each of the nine components of scholarship. For each kind of content, process, and premise reflection in instructional, pedagogical, and curricular knowledge we suggest three indicators The indicators are actions that faculty may take when using their own experience as well as research-based knowledge to enhance their knowledge about teaching The list is not intended to be comprehensive, but rather to open discussion by showing some of the many possible ways the scholarship of teaching can be demonstrated. We propose that when faculty engage in learning as suggested by these indicators—that is, in actions that indicate varying degrees of reflection on both experience and research-based knowledge in the domains of instructional, pedagogical, and curricular knowledge—they demonstrate aspects of the scholarship of teaching

TABLE 1

Examples of Indicators of the Scholarship of Teaching

INSTRUCTIONAL KNOWLEDGE

Indicators of Content Reflection
Discussing materials and methods with students or colleagues
Reading articles on "how to" teach
Keeping a journal or log of methods and materials used

Indicators of Process Reflection
Collecting data on students' perceptions of methods and materials
Asking for peer review of course outline
Comparing results of research on teaching to results in own classroom

Indicators of Premise Reflection
Experimenting with alternatives and checking out results
Writing critiques of methods articles or books
Challenging the departmental or institutional norms or values regarding teaching methods

PEDAGOGICAL KNOWLEDGE

Indicators of Content Reflection
Administering learning styles or other inventories to students
Reading articles or books on learning theory, critical thinking, self-directed learning
Writing an article on how to facilitate learning in the discipline

Indicators of Process Reflection
Gathering feedback from students on their learning the concepts of the discipline
Conducting an action research project on student learning
Comparing classroom experience to formal research results on student learning

Indicators of Premise Reflection
Writing a critique of an article on student learning in the discipline
Seeking out literature that questions the importance of learning styles, self-directed learning, etc
Participating in philosophical discussions on student learning, for, e g , a listserv or with colleagues

CURRICULAR KNOWLEDGE

Indicators of Content Reflection
Reviewing goals of the session, course, or curriculum
Reading articles and books about the goals of higher education
Including a rationale and goals in course outlines

Indicators of Process Reflection
Conducting a review of curriculum goals including a comparison to current practices
Tracing the history of program goals
Reading books on the goals of higher education and comparing goals to those underlying the programs offered in the department

Indicators of Premise Reflection
Checking with employers, business, industry, etc ,to see what their expectations and goals are in hiring graduates from program
Writing an article envisioning what higher education without curriculum goals may look like
Initiating or joining a committee on program goal review

Scholarship of teaching involves both learning and knowing about teaching Hence, evaluation should include both formative and summative purposes The indicators shown in Table 1 serve a formative purpose, because they facilitate the assessment of faculty's learning about teaching through either self-evaluation or interactions with a faculty developer The indicators could serve a summative purpose in that they allow an evaluation committee to assess the scholarship of teaching a faculty member has acquired

It stands to reason that if the process of learning about teaching and the resulting knowledge as described in the model is to count as scholarship, and we propose that it should, it has to meet the same standards as are expected of other kinds of scholarly work. In the next section, we explore this issue further

Standards of Scholarly Performance

The criteria typically used to discriminate between scholarly and other kinds of academic work are summarized by Diamond (1993) as follows· the work requires a high level of discipline-related expertise, it breaks new ground or is innovative, it can be replicated or elaborated, it can be documented, it can be peer-reviewed, and finally, it is of significance or has impact These criteria have their origins in the Mertonian norms of science (Merton, 1973), which are briefly summarized as universalism, communism, disinterestness, and organized scepticism.

Assessing contemporary faculty work according to these criteria has not remained unquestioned. Kelly, Carlsen, and Cunningham (1993) argue for a broader sociology of science, one that recognizes that processes of interpreting data, reconsidering theories, and negotiating conclusions, render the construction of scientific knowledge increasingly problematic, ill-structured, and more social. The Carnegie Foundation for the Advancement of Teaching proposes an entirely new set of standards for evaluating faculty performance (Glassick et al., 1997), arguing that the Mertonian criteria have outlived their day because they were developed at a time when the role of universities was seen primarily in the advancement of scientific knowledge As a result of Boyer's work (1990), however, it has become apparent that faculty are also involved in important scholarly activities other than the advancement of knowledge. For the scholarship of teaching, research, integration, and application to be equally recognized, Glassick et al (1997) propose that they all "must be held to the same standards of scholarly performance" (p. 22). The six standards they propose are that the work should have clear goals, require adequate preparation, make use of appropriate methods, produce significant results, demonstrate effective presentation, and involve reflective critique (p. 25). If the purpose of these criteria were to make teaching count at universities or to provide a basis by which to recognize the work involved in competent teaching, they would make a meaningful contribution. However, these standards are not designed to discriminate between competent and scholarly teaching. Scholarship goes beyond competence to be associated with excellence. Many competent teachers may not yet be scholars of teaching. The scholarship of teaching involves high levels of experience-based and research-based knowledge about teaching.

We choose to use the Mertonian criteria as standards for the scholarship of teaching here because we wish to distinguish between competence and scholarship The Mertonian criteria have sufficient power to do so

The first Mertonian criterion is that the work requires a high level of discipline-related expertise (Diamond, 1993) In our model, discipline-related expertise is essential for the development of pedagogical knowledge In order to help students solve the learning tasks associated with learning a particular concept, faculty require a high level of discipline-related expertise However, the kind of discipline-expertise that is even more important here is expertise in the discipline of teaching itself This expertise can also be understood as knowledge in the instructional, pedagogical, and curricular domains, constructed through content, process, and premise reflection on research-based knowledge and teaching experience.

The second criterion is whether or not the work is innovative Teaching is often considered innovative when a new strategy is used—knowledge of strategies fall within the domain of instructional knowledge. However, applying new strategies for the sake of doing something new is not likely to be meaningful Teaching strategies should change with the context of teaching and have a sound rationale. For this to be the case, not only instructional, but also pedagogical and curricular knowledge is needed Innovation is likely to be a part of faculty practice under our model Innovation can also be considered in relation to learning about teaching An individual who is constructing pedagogical knowledge often engages in innovation to do so He may conduct action research, gather feedback from students, or consult literature on critical thinking and self-directed learning

The third criterion, that knowledge can be replicated or elaborated, is more difficult to meet when the knowledge is primarily communicative in nature Lincoln and Guba's (1985) notion of "trustworthiness" might be a more applicable construct than replicability. Trustworthiness is reached when faculty engage in critical discourse to test their knowledge claims about teaching within the domains of communicative and emancipatory learning. Also, faculty who have developed as teaching scholars will, through perusal of the research on teaching, the conduct of their own classroom research on practice, and reflection on their practice, construct instructional, pedagogical, and curricular knowledge they can rely on and elaborate on.

The fourth criterion requires that the work can be documented. How the scholarship of teaching can be documented is demonstrated in part through the indicators shown in Table 1 Teaching portfolios and reflective essays about one's teaching (Adam & Roberts, 1993; Boileau, 1993; Edgerton, Hutchins, & Quinlan, 1991; Smith, 1995) would be examples of such documentation The evaluation of teaching portfolios should then be based on indicators of the scholarship of teaching (Kreber, 1998)

The fifth criterion, the question of whether the scholarship of teaching can be peer-reviewed, is related to the fourth. Publishing the results of a research project on teaching in one's discipline in a peer-reviewed journal would be an obvious example However, this is only one aspect of scholarship, namely the idea of scholarship as discovery research, and may or may not involve content, process, and premise reflection in the three knowledge domains Our model refers to faculty's learning and knowing about their own teaching and their students' learning. Teaching portfolios and reflective essays can be used to demonstrate learning about teaching (Knapper, 1995) Specific indicators would allow evaluation committees to assess the level of reflection demonstrated by the faculty member and the domains of knowledge in which this reflection has taken place

The sixth criterion is the significance or impact of the work Scholarship of teaching has an impact on those affected directly by the effort, the students Evidence for this impact may be gathered through letters from students, peer reviews, teaching evaluations, and student achievement records The significance of one's learning or knowing about teaching can also be demonstrated by sharing one's knowledge with colleagues by leading a discussion group or faculty development seminar, by articulating in the teaching portfolio the changes one has made to one's teaching as a result of new insights gained through reflection on research-based and experience-based knowledge about teaching, or by writing an article about one's insights or findings for a journal or newsletter.

If the scholarship of teaching were assessed exclusively on the basis of outcome criteria such as evaluations of teaching, the development of instructional materials, or textbooks, or research publications on teaching, we in fact would assess only instructional and perhaps curricular knowledge, pedagogical knowledge we would take for granted We agree with Ronkowski (1993) that the development of pedagogical knowledge does not take care of itself, that it is the most difficult knowledge to develop, and that becoming a scholar of teaching is an ongoing and thoughtful process The scholarship of teaching may be typically evaluated in terms of outcome measures because the acquisition of knowledge about the process of teaching and learning is not considered a rigorous scholarly activity. When faculty reflect on the findings of educational research in relation to their own teaching experiences in order to construct valid context-specific knowledge about teaching, this is a rigorous activity. Classroom (Cross, 1990a,1990b) or action research (Zuber-Skerritt, 1992) seem to be meaningful approaches to facilitate this process When higher education teachers engage in reflection on content, process, and premise in the domains of instructional, pedagogical, and curricular knowledge, through classroom or action research, this should count as a scholarly activity

Summary

Despite recent endeavors to broaden the conceptualization of scholarship, the notion of the scholarship of teaching has remained an ill-defined concept The assessment of the scholarship of teaching, to date, may have stressed outcome measures over the process of knowledge acquisition in teaching We propose an alternative understanding of the scholarship of teaching, one that considers it to be both learning about teaching and the demonstration of that knowledge

Following Mezirow's (1990, 1991) theory of transformative learning we introduce instructional, pedagogical, and curricular knowledge as three qualitatively different knowledge domains in teaching Knowledge in all three domains was suggested to be crucial for the development of scholarship in teaching

We discuss how knowledge in each domain is created through three forms of reflection, leading to nine components of a scholarship of teaching Each component involves reflection on both experience-based and research-based knowledge on teaching We also discuss Habermas's (1971) notions of instrumental, practical, and emancipatory forms of knowing in relation to faculty learning about teaching. This leads us to suggest that the learning underlying the development of each of the nine components of the scholarship of teaching is characterized by various combinations of instrumental, communicative, and emancipatory learning processes We briefly addressed how validity claims are tested in the instrumental learning domain as well as in the communicative and emancipatory domain

Knowledge in each of the three knowledge domains can be demonstrated With this goal in mind, we provide a list of indicators for each of the three kinds of reflection within each knowledge domain These indicators are examples of actions faculty may take from which involvement in a certain component of scholarship can be inferred The list is not considered final and the development of further indicators is encouraged

We offer the model as a response to the ambiguity that has characterized the evaluation of the scholarship of teaching Faculty and faculty developers can use the model to assess and foster the development of scholarship in teaching The utility of the proposed model for summative purposes depends on the readiness of faculty and administrators to embrace a broader interpretation of the criteria commonly used to assess scholarly work It also depends on our willingness to accept new ways of documentation, such as reflective essays and teaching portfolios (Knapper, 1995, Seldin & Associates, 1993) by which we can indicate our learning and our knowledge about teaching.

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Review Essay

Manifesto of a Tenured Radical, by Cary Nelson New York.
New York University Press, 1997 256 pp $50 00 (18 00)

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There is something wonderful about the title of this book *Manifesto,* harkening back to Karl Marx, suggests changes so important that they cannot be accomplished through ordinary administrative channels—a document to be nailed to the door of Old Main. A *tenured radical* suggests both the success of having achieved tenure and the idealism of radical reforms. These ideas put me in a good mood even before I open the text. I should have realized that another subtext of *manifesto* and *radical* is conflict.

Cary Nelson's world is enacted through conflict. He is an exemplar of what Deborah Tannen called the "argument culture" (Tannen, 1998). His tone is, "I am right," as opposed to "lets talk about these possibilities." From the first paragraph of the Introduction he identifies the academy as a place of haves (the tenured) and have-nots (teaching assistants and the untenured) The theme of this Marxist conflict flows through the book, as does the solution to this conflict—collective action The book is written from Nelson's perspective as a faculty member in English with substantial credentials in cultural studies.

It was difficult for me to review this book because it is written from the point of view of English and cultural studies, fields in which I am not an expert (although I hold two graduate degrees in English). The temptation is to evaluate the text using criteria of scholarship in the field of higher education, not criteria from cultural studies Such an approach is unfair, so I will try to reserve my comments for those places where Nelson makes policy recommendations for universities

The book is divided into three sections of four chapters each At the end of the Introduction he tips his hand and writes, "Earlier versions of

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portions of a number of these chapters, now revised and updated, appeared in, . .” and then he gives 11 citations. The book has 12 chapters. The reason that the book does not have a logical development is because it is a compilation of other publications—a collection of essays that often have little in common with each other.

The first section, “The Politics of English” begins with a chapter “Against English as It Was—Theory and Politics of the Discipline.” Here we are introduced to “cowbird theory,” namely aggressive life forms push weaker ones out of the nest. In English, theory (Marxism, feminism, multiculturalism, and gay studies, on the one hand, and phenomenology, deconstruction, narratology, and postmodernism, on the other) has forced out the old literary cannon (e.g., John Keats). Nelson is critical of his own field. “The literary text is defended so as to distract attention from the real object to be protected—the profession of literary studies.” He is perturbed that the profession does not turn its critical perspective on itself and engage in self-criticism. On the one hand, Nelson seems to be saying that theory has interfered with the study of literature, while on the other, it has given English faculty members the tools they need to reform themselves and free literature from its monocular white male European traditions.

The second chapter looks at multiculturalism, particularly how it has been influenced by the development of anthologies. For Nelson anthologies represent the wider social text, “figurations of the body politic, their compilation and use is thus fraught with social and political meaning and responsibility” (p. 29). He argues that syllabi are similarly imbued with notions of admissibility (who is to be included?) and extends the argument to national ideas about who is admissible to the country, that is, who should immigrate. I have no argument that anthologies and syllabi have the ability to silence or legitimize different cultural perspectives, but it seems a leap of faith that anthologies are all-powerful tools for social engineering. Only one in six Americans has a bachelor’s degree, and movies and television have a greater impact on how the country sees itself than does reading.

The third chapter, “Relativism, Politics, and Ethics: Writing Literary History in the Shadow of Poststructuralism,” attempts to show how theory can be articulated with traditional canon. Nelson’s example is his own work. Again, he stresses the non-artistic aspects of literature: “I frequently urge people to think about what social uses poetry has served in earlier periods, uses that are often different from those it serves in our own” (p. 43). The theme that literature is primarily a vehicle to reveal social issues is prevalent. Let me provide a contrasting view of literature from another author:

> Of the many pleasures held out by books, one of the most potent is that of discovery Readers love the opportunity to explore unfamiliar lives, to ponder the questions that shape those lives, to participate imaginatively in struggles that are unique and engrossing Readers are armchair versions of hunters on the veldt, all of us stalking unanticipated interests, undimmed excitement, some fresh way of seeing our world " (McGraw, 1998, p 743)

I present this quote only to show that Nelson's view is completely antithetical to McGraw's Nelson sees the art in literature as clearly subservient to literature's use by the elites for their own purposes

Mixed with his personal approaches to teaching are cogent observations For example he notes that "criticism is an interested, politically implicated, strategically positioned, and historically specific activity
I am not interested in the fantasy of commentary that pretends it may last for all time" (p. 48) He knows that "the histories we devise are constructed in the service of our own needs, compulsions, plans, and interests" (p 50) And his attack on the New Right seems well founded

It is in the fourth chapter, "Always Already Cultural Studies· Academic Conferences and a Manifesto," that the manifesto referred to in the title is proposed. It is a manifesto for cultural studies and not for the university The chapter describes the recent history and current state of cultural studies and Nelson's assertion of his important role in this matter.

Nelson feels the need for the manifesto to guide cultural studies into its proper place in academe and presents a 16-point cultural studies manifesto Key phrases describing the field include "committed to studying . . use of texts," "conceives culture relationally," associated with the "politics of race," "concerned with the social and political meaning and effects of its own analyses," "seeks to empower students to understand the social and political meaning of what they learn throughout the university," and so on (pp 67–68) A critique of society, historiography, and the importance of fairness are values important for the field

The second section of the book, entitled "The Academy and the Culture Debates," more clearly enters into what I would call confessional scholarship or memoir Here, in four essays that are largely unrelated to each other, Nelson leads us through his own experiences in developing a poetry class focusing on inclusion/exclusion issues, dealing with his experiences with attacks on the academy from the political Right (Lynne Cheney, William Bennett, and Dinesh D'Souza), hate speech and political correctness—where regulation of hate speech may do more harm than good, and finally a plea to put "the Left at the Center," as he did in his own course.

Though I agree with many of the points Nelson makes, the logic and evidence for his case(s) is inconsistent His polemic is constant fairness in issues of diversity is good, academic freedom is good, the New Right is bad, and the Left is good. The tone of superiority ("I was, as it happened, the only speaker who spoke out against hate speech regulation" (p 120) was off-putting

The final section again has four loosely associated chapters Topics range from the role of the intellectual in society and on campus; pressures placed on academic employees due to the capitalist environment in which universities exist and the collective action needed to right this wrong, jobs, careers, and the academic marketplace in which "universities . will be increasingly exploitive employers" (p 138) Here again Nelson turns to his own experience, his own scholarship, his own academic world.

In Chapter 9, "Dichotomy Is Where the Money Is. Anti-intellectualism Inside and Outside the University," Nelson describes his conception of intellectual life on campus He covers himself by saying it is impossible to have a universal model of an intellectual, but he fuses being an intellectual with being an activist It would have helped clarify his discussion if Nelson had distinguished between an intellectual, an academic, and an activist.

He also thinks that our research should be multidisciplinary:

> Multidisciplinary research and writing, one of the categories in which *Manifesto* falls, is designed to reach academics in a variety of disciplines It is designed to encourage reflection, build common knowledge, and work toward consensus *within* academia, an activity that is absolutely necessary if academics are to begin identifying anew with the general enterprise of education and begin speaking for it effectively in public (p 151)

What I don't know is whether this "variety of disciplines" includes the professions business, social work, education, law, medicine, and engineering. It clearly applies to the humanities

The subtitle of the ninth chapter is "The Expendable Employee." Replaceability (someone else could take your job) has created the buyer's market for universities, and they are taking advantage of this situation. Nelson has several interesting insights into faculty hiring practices, the difficulty of getting tenure, and the growth in the class of itinerant part-time faculty members. His solution to this exploitation is collective action His model of the university is an economic one where issues of employment seem paramount.

In Chapter 10, "Late Capitalism Arrives on Campus: The Corporate University's Expendable Employees," Nelson returns to familiar themes Here he describes academic hypocrisy, which occurs, for example, when graduate students are exploited as cheap labor though they never will be hired as tenure-track faculty We have no hope of employing the apprentices at the end of their apprenticeship. But he also explores some of the Catch-22s of the academic marketplace. For instance, a graduate student needs to publish a book to get a job But if students have a book, they are grounded in reality The faculty who would hire them can no longer fantasize that their ideas will make them the next transformative leader in their field. They are passed over for the "amazing potential" of someone what has not finished his or her book

The title of the eleventh chapter is, "What Is to Be Done?: A Twelve-Step Program for Academia." "Academia" again seems not to include the sciences and professional schools or institutions other than research universities. Still, Nelson makes some interesting points For example, we now have "careerism" as a norm—faculty action is aimed at individual faculty career success—with a notable emphasis on individual publishing His twelve-step program included writing a bill of rights, unionization, changing the status of teaching assistants, raising wages, improving the market place, changing disciplinary organization, reeducating the faculty, closing marginal doctoral programs, encouraging deadwood to retire, and popularizing the accomplishments of the academy. Some of these suggestions seem quite useful (like the last one), whereas others (having community colleges hire more PhDs) may be counterproductive for turning graduate students into esteemed faculty members

In the final chapter, "Reaction and Resistence at Yale and the MLA Union Organizing and the Job Market," Nelson provides few new ideas He rails against the marketplace, the disingenuousness of his colleagues, prides himself in naming names, and again looks to collective action as the solution to all that ails us. And as he began speaking in anger and cynicism, so he ends "Unfortunately, Yale sometimes reacts by distorting the truth, crediting courses jointly taught by faculty and students entirely to the faculty Typically, faculty members provide the weekly entertainment in a lecture and teaching assistants lead discussions and do all the grading." The evidence is largely anecdotal.

For those of us who study higher education, there are few surprises in this book. Perhaps Nelson draws attention to things in English and cultural studies that need attention He certainly gives us his opinion The intention of improving higher education for faculty members and graduate students, for improving our disciplines, for bringing out issues to the public so they better understand our case, of enhancing fairness, are laudable The topics have much currency

There are several flaws in this book First, it is needlessly difficult to read Second, it is a collection of essays and thus lacks a coherent thread to bind its chapters and sections together If it had been called *Collected Essays· An Academic Memoir,* I think its title would have more closely represented its content. Third, it has a tone of combativeness and self-importance. Fourth, it dwells on autobiographical tales. It's fun to find out what's going on in another discipline, but if this is to be interdisciplinary scholarship and not exposé, references ground arguments in a way anecdotes do not

On the back cover this work is referred to as "eloquent" I find the writing overblown, full of the jargon of postmodernism and cultural studies, and lacking in sentences that move me through force of their diction, rhythm, or image Several examples of this intractable prose leap out at the reader Here are two:

> Now that efforts to open up the canon and efforts to expand the cultural reach of academia's field of vision have been scandalized for abandoning the transcendent and eternal standards of Western high culture-something not everyone involved in canon revision or multiculturalism would want to embrace-cultural studies can cheerfully occupy the site of standard-free omnivorousness (pp. 73–74)

The logic of this statement, as well as its meaning, escape me Here is a second example

> Even though particular theorists can produce founding or radically transforming discourses, other individual practitioners may often seem either to lag behind the development of the discourse as a whole or to succeed in applying a theory in a largely uncritical and unreflective way, thereby perhaps anticipating the general process of normalization (p 17)

Besides this puzzling writing Nelson also uses an annoying rhetorical device: the fallacy of the singular alternative. He writes, for example, "Higher education remains the only proven means of social mobility." Here he neglects to mention business, where the rise from "rags to riches" is mythical and examples are well known.

On page 138 Nelson writes "Most faculty are far from articulate or thoughtful when confronting policy issues outside their disciplinary expertise." I think Nelson suffers this fate He draws the conclusions of sociologists, policy analysts, political scientists, organizational theorists, and labor studies and higher education scholars but lacks the use of evidence that marks their methodological rigor. Although he calls this work "interdisciplinary," the bibliography indicates that Nelson rarely ventures outside English and cultural studies One need only compare Nelson's approach with that of Gary Rhoades in *Managed Professionals: Unionized Faculty and Restructuring Academic Labor* to see how much Nelson emphasizes first-hand knowledge Neither does he reference literature from the professional schools when many of these writings are directly relevant to the points he is trying to make. Though we get the sense of what Nelson has done, there is none but an impressionistic assessment of whether his recommendations would have any of the intended consequences in other situations

Nelson wants to be a social scientist—someone who provides explanations of social behavior I will propose a pattern that I think many scholars who are not natural scientists may unconsciously exhibit Nelson, like all academics, wants to be considered legitimate Who is legitimate in the academic culture? Scientists. Why? Because they have been at least partially responsible for a fabulous technology and an effective health care system. Social scientists have noticed this success and want to be more like natural scientists People in the humanities also take notice They want to become more analytical and abstract in their thinking, more like natural scientists or at least social scientists. Thus, the analytical position that literature is symbolic of social forces is valued, because it moves the study of literature out of the soft and subjective world of art into the social sciences. Though not trained as a social scientist, Nelson seems to want to move into a realm closer to science so his scholarship will be viewed as more legitimate.

It seems ironic that as much as Nelson is obsessed with reducing the inequities associated with hierarchy, he sees hierarchy as inevitable "As an intellectual enterprise cultural studies will inevitably have some people of greater achievement and influence associated with it Those who would urge us to ignore such a hierarchy—based on accomplishment and impact—are simply being foolish and irrational" (p. 60) Nelson includes himself in this elevated group, and to ignore this hierarchy is "foolish and irrational" He doesn't consider the problem that if one group is really this superior to another, shouldn't they receive higher compensation? He seems to justify a hierarchy he simultaneously considers unfair.

Would I recommend the book? For faculty and students of cultural studies, yes. For general readers of higher education literature, it's a tough question Strengths lie in three areas. First, Nelson explores the political nature of faculty, the curriculum, syllabi, and courses Second, he examines issues of fairness, particularly fairness toward doctoral students and untenured faculty Third, he views universities as economic systems and examines careerism and how it affects academic decision making Nelson also presents the issues of identity and legitimacy that face disciplines such as cultural studies when they first emerge There are some intriguing ideas and arguments represented here, although their quality is uneven

What piques my curiosity is why the New York University Press wanted to publish this book. Was it the title? Or because of Mr Nelson's name recognition? Was it for altruistic reasons because they were compelled by his logic and thought that the academy could be improved by endorsing Mr. Nelson's approach? Did they think this book might catch fire like *The Closing of the American Mind* and make a profit for the press? For me their motivation remains a mystery.

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Book Reviews

Successful Service-Learning Programs New Models of Excellence In Higher Education, edited by Edward Zlotkowski Boston, MA Anker Publishing, 1998 231+ pp $35 95

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It is probably the case for higher education that during the past decade only the World Wide Web has grown at a faster rate than service learning Thousands of service-learning classes have been added to the curricula of institutions of higher education In addition to growth in the number of courses, there has been important programmatic development of service learning on campuses *Successful Service-Learning Programs New Models of Excellence in Higher Education,* edited by Edward Zlotkowski, highlights ten exemplary service-learning programs in higher education With one exception, the centralized offices for service learning on these campuses have existed, on the average, for only seven years This is significant, because it demonstrates the rapidity with which service learning is having an impact on the culture of higher education for faculty, students, administrative staff, and community partnerships It is not only significant but also timely, because, as Eugene Rice notes in the foreword, service learning holds the potential to "bring coherence and direction to higher education at a time when it is most needed" (p xi)

Few persons are as well positioned to identify successful service learning programs as Edward Zlotkowski As professor of English at Bentley College, he was instrumental in helping that campus discover the benefits of successfully integrating community service with academic study As senior associate for the American Association for Higher Education (AAHE) he has visited and consulted with scores of campuses As senior editor of the AAHE monograph series *Service-Learning in the Disciplines,* he understands the intellectual underpinnings that form the basis for service learning and the importance of the disciplines to the future integration of service learning in the academic life of faculty It is from this broad base of experience that Zlotkowski identified service-learning programs that have demonstrated success in establishing "institutional relevance, academic integrity, and adequate faculty support" (p 11)

Rather than identify the "top ten service learning programs," Zlotkowski selected exemplary institutions that differ in type Augsburg College, Bates College, Bentley College, Brevard Community College, North Carolina Central University, University of Pennsylvania, Portland State University, Providence College, Santa Clara University, and University of Utah This variety ensures that virtually any reader from higher education will find at least one chapter with information from an institution similar to his or her own, although all chapters contain information that transcends institutional type in its usefulness Each chapter was written by a campus representative who describes the historical context within which service learning developed on that campus, the persons who helped shape its course, how the service-learning program developed, and how it relates to institutional mission, student learning, faculty work, and community partnerships

Each program description offers broad guidance, specific ideas, and inspiration to those who want to see service learning become institutionalized on campuses. These programs demonstrate the potential for service learning to go beyond piecemeal course development and to facilitate Boyer's (1997) vision of an engaged campus that addresses social, civic, economic, and moral issues in the community The following common characteristics extracted from this diverse set of institutional profiles can provide general guidance and direction to those in higher education

- Alignment with mission Each campus develops a unique rationale for making service learning more than a peripheral aspect of programming This occurs in the accounts of faith-based institutions, metropolitan campuses, a community college, a historically black campus, a liberal arts college, a major research university, and a business college Alignment with institutional mission is essential if service learning is to become institutionalized (Holland, 1997, 1999) In this way, service learning can facilitate development toward balance and integration across teaching, research, and service for very unique mission statements
- Support from leadership at all levels Each description shows the importance of presidential leadership, a core group of faculty who champion service learning, strategic and ongoing use of advisory boards, a plan for engaging student and community participation, and the benefits of coordinating service-learning programming with other institutional units on a campus (e g , scholarships, faculty governance, admissions, student affairs, general education) In doing so, service learning can help each campus successfully engage a broad set of university constituents in community issues and provide coherence to multiple aspects of campus programming
- Enduring community partnerships Aside from the community *placements* that are necessary to support specific service-learning classes, each description shows how at least one broad-based community *partnership* has been cultivated The presence of these enduring and multifaceted partnerships becomes a vivid expression of campus commitment to authentic community engagement and leads to diverse ways in which the campus and community become interdependent It is through these types of partnerships that service learning can assist a campus in becoming a better citizen
- Developing leadership through service Although there are many models for developing leadership, each of these ten case studies demonstrates how student, faculty, community, and institutional leadership is developed through community engagement and service learning In this way, service learning strengthens campus and community assets and creates learning communities for all constituencies.

- Strategies for fostering service learning There are some approaches to expanding service learning on campuses that are mentioned frequently enough to be worthy for other campuses to adapt, including the use of mini-grants for course development, faculty workshops, campus seminars, and participation in regional and national activities and organizations such as Campus Compact, National Society for Experiential Education, National Gathering, and institutional associations These specific program descriptions (with very specific information in extensive appendices) will provide resources for improving the implementation of service learning on other campuses

The strength of these narratives comes from the diversity of institutional types and programmatic approaches. The accounts are honest enough to note how fiscal crises, false starts, and serendipitous events were associated with setbacks, opportunities, and growth. In addition, they are informative enough that those faculty, administrators, and staff who are interested in and responsible for service-learning programs will glean wisdom from all of the chapters Zlotkowski notes in the preface that these exemplary programs, which have demonstrated strengths, also have, for the most part, not produced institutional change to support faculty in promotion and tenure A concluding chapter would have helped to set a far-reaching agenda for further integration of service learning into the faculty, student, and administrative culture on a campus (e g , integration of student and academic affairs, integration with general education, honors, and senior capstone seminars, integration with long-term planning, assessment, and budget allocations). Advocating for increased campus investments in program evaluation and research on service learning is of particular importance, because it will improve implementation of service learning, engage faculty and students in additional dimensions of work associated with service learning, produce needed scholarship on service learning, and increase faculty recognition (Bringle & Hatcher, 1996).

Successful Service-Learning Programs is the best collection to date of institutional case studies from which those in higher education can gain information, confidence, and vision Holland's (1997, 1999) description of case studies provides important information about principles of institutionalization, but it does not provide the rich detail that is presented in Zlotkowski's book His case study approach is a strong complement to Jacoby's (1996) *Service-Learning in Higher Education Concepts and Practices,* together they will inform and improve the work of those who direct and oversee service-learning programs on campuses *Successful Service-Learning Programs* also presents strong evidence that higher education is responding to Boyer's (1994, 1997) challenge for campuses to explore the scholarship of engagement, to develop his vision of the new American college, to promote civic education, and to reaffirm with renewed clarity the role of colleges and universities as citizens (Bringle, Games, & Malloy, 1999)

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Strategic Change in Colleges and Universities, by Daniel James Rowley, Herman D Lujan, and Michael G Dolence San Francisco, Jossey-Bass, 1997 320+pp $34 95

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Numerous articles and books have been written on strategic planning Some are based on rational models (Keller, 1983, Kieft, Armijo, & Bucklew 1978), others are more contextual (Peterson, 1997), and some are prescriptive and easy to read (Merson & Qualls, 1979, Norris & Poulton, 1991)

In the preface of *Strategic Change in Colleges and Universities,* the authors state, "One of our motivations for writing this book is to provide other campus strategic planners with important before-the-event knowledge that will help them avoid the mistakes we made and develop a more comprehensive and collegial approach to the process " The authors use their experiences with the University of Northern Colorado's strategic planning process to provide context for their theories and principles for strategic change The framework for the book includes (1) an overview of the reasons why strategic planning is needed at today's colleges and universities, (2) a review of the concepts of strategic planning and advice on how to conduct strategic planning in a college or university setting, and (3) recommendations on how to implement a strategic plan and move from strategic planning to strategic management The authors integrate potential pitfalls of strategic planning throughout all of the chapters

The first five chapters provide an excellent summary of the challenges and opportunities that face higher education at the close of the twentieth century The authors note that a key purpose of strategic planning is to enable an organization to align itself most effectively with its external environment, and they cover the external environment in depth Chapters 1 and 2 reflect changes in information technology, scientific discovery, and higher education financial support and describe the societal expectations that compel college and university officials to realize they can no longer rely on business as usual A strength of these first chapters is the clarity with which the authors explain why these officials find it difficult to change These explanations include higher education's origins, its multifaceted governance structure, its basic structure as a "provider-driven" entity, and the primacy of academic disciplines

In chapter 3 the authors review the differences between traditional and strategic planning models, citing as a key distinction the external focus of strategic planning contrasted with the internal emphasis on traditional approaches Other differences include (1) alignment traditional planning sets goals and objectives to achieve these goals, whereas strategic planning aligns the organization with its environment, (2) specificity versus direction strategic planning is less specific and puts emphasis on broad directions rather than exact targets, (3) focus traditional planning is parochial and gives attention to units within an organization, whereas strategic planning keeps its focus on the organization as a whole, and (4) time-relatedness strategic planning is an ongoing process, whereas traditional approaches are more episodic

The authors also compare strategic planning within businesses to that within the context of higher education Businesses have more control, fewer revenue constraints, fewer opportunity constraints in the open market, different stakeholders, less of a need for participation by workers in decision making, and lack of shared governance

The authors conclude Part 1 by describing how campus politics can derail the best-laid strategic planning process and offer suggestions on how to avoid these circumstances or at least reduce their impact Especially helpful is the authors' insight into reasons why faculty and administrators often resist strategic planning, such as fear of uncertainty, skepticism, inertia, and threats that the existing distribution of organization resources will be changed or that there will be layoffs Dynamics of the resistance include veto power through legislation, rules, and tradition, antidotes to prevent or minimize resistance include a clear rationale for initiating strategic planning, deliberate cultivation of allies, support from the governing board, effective communication, dividing the opposition, and simply being patient Much of this advice is repeated in later chapters

Part 2 devotes pages to an in-depth and often repetitive explanation of the strategic planning process Chapter 6 contains a ten-step planning model and stresses Key Performance Indicators (KPIs) as specific direction for the strategic planning process. This emphasis seems in contrast to the overall direction to the strategic planning the authors presented in Chapter 3 The authors also offer a spreadsheet for use in a cross-impact analysis of the KPIs and related impact and present a similar way for comparing the KPIs with external threats and opportunities as well as internal strengths and weaknesses The reader can easily view these approaches as very rigid and as attempts to impose a veneer of scientific objectivity onto a process that is fundamentally intuitive

Chapters 7 through 12 provide an excruciatingly detailed "how-to" manual on strategic planning in a college or university The authors again instruct the reader on conducting a SWOT analysis understanding the local organization culture, appointing the strategic planning committee (SPC), developing the planning document and setting the criteria to evaluate the plan, and defining the roles of all the various stakeholders, all the committee permutations, and the time lines In addition, the authors provide still more information on the importance of communication throughout the planning process, as though they assumed that the reader has no experience in higher education administration, planning, organizational politics, and no memory of concepts that were presented a few pages earlier

Part 2 concludes with a weak coverage of the four examples of key strategic planning areas enrollment management, academic program planning, resources administration, and technology planning. The authors make a few points about why these are strategic areas and why they can be difficult areas in which to plan In addition, they refer to other books and articles that give examples of how some institutions have approached planning

Part 3 includes three chapters (thirteen to fifteen) in which the authors advise how to implement the strategic plan and how an institution can move from strategic planning to strategic management Chapter 13 purports to describe implementation but instead it revisits such issues as communicating well, anticipating and minimizing resistance to change, facilitating collaboration, and taking the long view, although the authors had covered these topics thoroughly in earlier chapters In Chapter 14, the authors attempt to describe the differences among various types of institutions in order to assist academic planners in tailoring the process to their own institutions Though each institution is unique, the authors assert that they share such commonalities as private versus public funding and ownership, large versus small size, and research versus teaching emphasis Although the information presented in this chapter is simplistic, the authors describe some of the distinguishing characteristics of each genre very well

In chapter 15, the authors attempt to clarify how to move from strategic planning to strategic management, but they only touch on what this entails The content in the chapter reiterates earlier points about the imperative for higher education to change, distinguishes transformation from change, and gives a brief overview of the trend to place the learner (rather than the faculty member) at the center of the learning process

In the closing thoughts, the authors describe how decision making, mind sets, organizational structures, and internal processes might change in an organization that has adopted strategic management Absence of depth on strategic management is a weakness in this book

Strengths of the book are the authors' informative description of the problems that threaten effective strategic planning the problems of campus politics, weak communication among the complex stakeholders, and lack of clarity of purpose of planning The authors give a good summary of the nature of strategic planning, a rationale for using their recommended approach to planning, and a comprehensive, step-by-step guide to the process. Unfortunately, they repeat themselves needlessly with detailed suggestions.

Strategic Change in Colleges and Universities does not deliver on the promise of explaining how to move from strategic planning to strategic management Finally, the accompanying workbook *(Working Toward Strategic Change)* contributes little beyond the text

Although institutional planners and planning committees will benefit most from this book, the authors do not seem to have such individuals in mind as their primary audience, for they have written a book that assumes that the reader knows little or nothing about institutional planning, organizational culture, academic work, and current issues facing higher education Other potential audiences might include researchers with an interest in studying planning as a science, yet the book offers little to the serious scholar of this discipline, because it breaks no new ground and does not broaden the base of knowledge about planning The book is a reasonable introduction to strategic planning for students of higher education administration, but it needs to be supplemented with other works of a substantial nature (e g , Barker, 1997, Cope, 1981, Keller, 1983, Mintzberg, 1994, Peterson, Dill, Metz, & Associates, 1997, Schmidtlein, 1983, Schmidtlein & Milton, 1990, Taylor & Schmidtlein, 1996)

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Successful Fund Raising for Higher Education. The Advancement of Learning, edited by Frank H T Rhodes.
Phoenix, AZ: ACE/Oryx, 1997 232 pp $34 95

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Higher education means business (Anon)

There is universal acknowledgment within higher education circles that government funding for public higher education has deteriorated to the extent that state public institutions are now viewed as "state assisted" or "state affiliated," or even "state located " Public institutions are increasing their dependence upon non-government sources by greater reliance upon fee payers and upon private donors Private institutions, in contrast to publics, historically have eschewed the public domain. Yet recently, in a context of increasing competition for private funding and increasing costs that are commensurate with rising expectations, private institutions pursue public resources, especially through federal grants and student financial aid, suggesting that these institutions are not literally private In *Successful Fund Raising for Higher Education The Advancement of Learning*, both sectors are treated equally as pursuers of resources, specifically through fund-raising campaigns

Yet, the book does not deal explicitly with the comparison between private and public institutions Nor does it acknowledge its underlying theme. that fund raising in U S higher education institutions is a major institutional activity, integral to fulfillment of institutional goals Although the chapter authors and the book's editor stress the importance of fund raising as an institutional action and as a component of organizational structure, they do not make explicit what is implicit for the eleven institutions featured in *Successful Fund Raising for Higher Education*, the business of these institutions is the acquisition of funds If these institutions represent U S higher education, then higher education means business

Frank Rhodes, the editor of *Successful Fund Raising*, sets up the chapters, written by a group of esteemed college presidents and advancement officials, in his preface and introduction, with an underscored message on the significance of institutional advancement Indeed, continuity is maintained into the chapters because Rhodes is a coauthor with Inge Reichenbach of the first chapter of the book Rhodes promises a substantial treatment of several topics, including advancement, both "advancement of learning" and what we commonly understand as advancement fund raising Furthermore, there is promise of the examination of the relationships between presidents and trustees and among presidents, trustees, and advancement officers, as well as focus upon institutional partnerships externally Finally, the reader is led to believe that the chapters that make up the book will offer a guide to other institutions and institutional leaders in their pursuit of private sector funding Rhodes sets a high-minded tone in his introduction as he stresses the significance of integrity—institutional integrity, program integrity, and the integrity of the relationships between involved parties—in fund raising Notwithstanding the potential for examination of the numerous topics cited above, the chapter authors are preoccupied with the denotation of advancement that connects the term to fund raising.

The chapters that follow, Rhodes' included, are largely testimonials of fund-raising accomplishments of specific higher education institutions, both private and public Each chapter is authored by an institutional official, usually the institutional president (past or present), and in over half of the chapters with an additional author, usually the chief advancement or development officer Charles Young, former chancellor, University of California, Los Angeles, from 1968 to 1997, provides insights on and examples of the growth and development of fund raising at UCLA Philip Tummmia, vice president of university advancement, and Lori Marshall, director of publications, of Rowan University offer advice and sometimes homilies ("A president without a vision is a president who will not be raising private funds" [p 62]) in their descriptions of institutional practices Miguel Nevárez, president of The University of Texas-Pan American, recounts his personal experiences as a new administrator at the institution beginning in 1971, and develops his narrative into the 1980s, when in 1981 he became the university president, and finally to the present, where he looks back at the university's accomplishment and ahead to his imminent retirement Rev Jonathan DeFelice, John Reilly Jr , and Paul Dowd of Saint Anselm College describe a complex fund-raising structure supported by three vice-presidents and an unusual approach to institutional governance ("This approach, which vests governance in the religious community that sponsors the college, not in the board of trustees, survives at a few colleges" [p 126]) The other chapter authors, Frank Rhodes and Inge Reichenbach (Cornell), James Duderstadt (The University of Michigan), Peter Stanley (Pomona College), Robert Kopecek and Susan Kubik (Northampton County Area Community College), Mary Patterson McPherson and Donna Wiley (Bryn Mawr), William Harvey (Hampton University), and David Pond and Eric Widmer (Deerfield Academy) follow an evolving pattern of relaying their institutions' achievements in fund raising while offering some descriptions of the processes and structures that support fund-raising activities The discussion of individual institution's practices, however, are not models, either conforming to some conceptual structure or applicable to replication at other institutions Each chapter is a single vignette, a description of what the author, or authors, deem to be successful practice and outcomes at their institution

It is reasonable to surmise that this book has too many promises and too many unaddressed topic areas to satisfy all readers For the experienced practitioners, *Successful Fund Raising* offers neither synthesis nor analysis of the testimonials provided by the chapter authors for use as guides in practice As a scholar, I was initially intrigued with the possibility of case studies Yet, without a framework for or an analysis of these accounts, I eventually viewed them as documentary data sets, not cases Additionally for the scholar, the editor's selection of cases, though possibly an effort at inclusiveness, becomes a mounting problem as one testimonial is concluded and another begins without connections offered by the editor or chapter authors

In representation of institutional types, there is almost one of everything There is a large private institution (Cornell), two large public institutions (Michigan and UCLA), a medium-sized public (Rowan), a small private college (Pomona), a community college (Northampton), a women's college (Bryn Mawr), a university serving Hispanics (University of Texas-Pan American), a religious-based college (Saint Anselm), a private, historically black university

(Hampton), and even, surprisingly, a non-higher education institution, an independent school (Deerfield Academy) Yet, the purpose of inclusiveness is neither made clear nor does such an abundance of institutional types, on the face of it, serve any purpose Selection of a multitude of types does not add to illumination, and without analysis or comparisons there is no message that the book as a whole offers its readers, unless the reader him or herself engages in analysis

For judgment of the utility or scholarly soundness of the book, then, we are left to rely upon a self-generated analysis, focusing upon the qualities of individual chapters What can we learn from each institution's practices? What can we learn about governance, management, leadership, and fund raising at each institution? What is of practical value in the chapter? What is the scholarly contribution? What follows, then, is this reader's efforts at a brief analysis

At the large public and private institutions (Cornell, Michigan, and UCLA), fund raising is integral to elite status and the fulfillment of institutional mission At these institutions, fund-raising campaigns exceed a billion dollars, and at this level these fund-raising activities constitute complex and highly sophisticated organizational behaviors that model large corporations—quality management approaches at the University of Michigan, a network structure of divisions or organized specialty groups for campaigns at Cornell, and a monitoring and tracking system across the campus at UCLA for coordination of cultivating and soliciting donors At these universities, fund raising is not just part of business, but big business Presidents of these universities can devote up to almost a third of their time on fund-raising activities during fund-raising campaigns

At the smaller, more specialized and private institutions, the attributes of the institution itself are consequential components of and rationales for fund raising Historical development and regional context led to the "deferred gift" approach of Pomona, a college located in Southern California, with a large number of affluent retirees in the local population "Tax savings, trust management, and investment assistance" (p 68) worked well for this group and for their relationship with a small college in the period from the 1940s to 1980s Growing revenues helped to boost the institution's reputation, which, of course, assisted in attracting contributors

For Bryn Mawr, a private women's college, fund raising relies upon a female constituency and depends upon volunteer women, who until the late 1970s managed fund raising on a daily basis Not surprisingly, the practices of Bryn Mawr are oriented toward a personal approach in the solicitation of funds, as noted by Mary Patterson McPherson, the former president, and Donna Wiley, Bryn Mawr's director of resources and the secretary of the College "The handwritten note, which currently characterizes the Bryn Mawr process, may shortly be replaced by the spontaneous electronic mail massage, but the same principle holds Personal relationships based upon trust and familiarity achieve successful fundraising" (p 102)

At Hampton, a Historically Black University, "the fund-raising process involves every administrative office, faculty member, alumni, trustee, and student" (p 149) This communal approach is not just apparent in spirit but in formal roles and goals for organizational members Not only are deans "responsible for raising one-third of their annual operating budgets" but also faculty are evaluated for their fund raising efforts (p 142) These norms seem to be an outgrowth of the institution's historical development, its close associations with industry and professional organizations through its largely applied curriculum and its leadership, including the role and expectations of the presidency, especially the concept of president as the personification of "the goals and objectives of the institution" (p 147)

If anyone wonders what college presidents do these days, look no further According to *Successful Fund Raising for Higher Education*, the primary role of chief executive officers is fund raising No doubt, it is likely a consequence of the point of view and the institutional position of the chapter authors as institutional president or chief advancement officer that the role of the president is the preeminent factor in advancement, both of the financial kind and the kind that promotes the institution through raising its public profile and its prestige This observation is further reinforced by the extensive bibliography at the book's end, a list of 200 works, of which 39% are connected to fund raising and the other 61% to leadership, specifically to presidents and trustees Along these lines, *Successful Fund Raising for Higher Education* contributes to scholarship on presidents and boards, to the role of both, to the relationship between the parties, and to their connection to and influence upon college operations The literature is rather limited in this regard, with Miriam Wood's (1985) *Trusteeship in the Private College*, which is not cited in the book's bibliography, as one exception

Successful Fund Raising for Higher Education also adds to our knowledge of the role of volunteers in higher education settings At these institutions, fund raising would be a muted and feeble activity without the work of large numbers of volunteers, mostly alumni, but including non-alumnus as well as organizational staff At several of these institutions, numbers up to and exceeding twelve hundred volunteers participate in fund-raising campaigns The concept of volunteers in higher education institutions indicates that the individual citizen, in a public act, not a private company or corporation, is the *sine qua non* of financial survival for these universities and colleges What thus connects all of these institutions, from the major public and private universities to the community college and to the precollegiate institution, Deerfield Academy, is the voluntary act of individuals, both within the institution and without.

Almost serendipitously, three roaming and ostensibly unrelated themes—the private and public distinctions, the reliance upon volunteers, and the business nature of higher education—are brought together in *Successful Fund Raising* through testimonials of institutional fund raising In this vein, public and private institutions are indistinguishable, even though in several essential ways, such as governance, they are markedly different In this vein, the role of volunteers is central to the financial health of American higher education, that is, unpaid labor sustains the enterprise And, finally, in this vein, higher education is a business, with the acquisition of money as the key act of distinction Few books, unwittingly, offer this much insight

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Information Technology Use and Cognitive Outcomes in the First Year of College

Introduction

It appears clear that computers or information technology have the potential to fundamentally alter the face of teaching and learning in American postsecondary education (Green, 1996, Kozma & Johnston, 1991, Kuh & Vesper, 1999, Pascarella & Terenzini, 1998, Upcraft, Terenzini, & Kruger, 1999, West, 1996) The promise is, indeed, great As suggested by Kuh and Vesper

> Used appropriately and in concert with powerful pedagogical approaches, technology is supposed to enhance student learning productivity It does this by enriching synchronous classroom activities and providing students with engaging self-paced and asynchronous learning opportunities that enable students to learn more than they would otherwise at costs ultimately equal to or below that of traditional classroom based instruction (1999, p 1)

Based on recent dramatic increases in instructional computer use in American colleges and universities, it would appear that the promise of information technology has a considerable amount of logical appeal For example, a recent report issued by The Institute for Higher Education Policy (1999) indicated the extent to which computer use in postsec-

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ondary instruction has increased in just the last few years Based on data from the 1998 National Survey of Information Technology in Higher Education, the Report indicated that in 1994 about 8% of postsecondary classes used e-mail This increased to 44% by 1998 Similarly, the percentage of classes reporting that they used internet resources increased from 15% in 1996 to 30% in 1998 By 1998 it was estimated that 46% of all institutions had a mandatory student information technology (computer use) fee

Paralleling documented increases in the classroom use of computers is evidence suggesting substantial increases over time in student familiarity with computers In analyses of several, large, multi-institutional cohorts of undergraduates, Kuh, Connolly, and Vesper (1998) report that in the mid-1980s about 32% of college seniors reported making substantial progress in becoming familiar with computers during college By the late 1990s this jumped to nearly 60%

Of course, access to and use of computers and information technology is not uniform across institutional types or among different kinds of students Both access and use appear to be positively linked with wealth and prestige at the institutional level, and with socioeconomic status and with being Caucasian or Asian American at the individual student level (Gladieux & Swail, 1999)

Despite institutional or socioeconomic inequities in computer access or use, it is clear that information technology is likely to have a massive impact on how colleges and universities conduct their future business, both in and outside the classroom Both Gladieux and Swail (1999) and Green (1997) have argued that high-school graduates bound for postsecondary institutions are increasingly part of an "information age" in which success in a competitive world economy is seen as inextricably dependent on computers and information technology Indeed Green (1997, p 9), as cited by Gladieux and Swail (1999) has suggested that colleges and universities engage in "a kind of educational malpractice" if they fail to incorporate technological training in the instructional process Others, such as Ehrmann (1995), have suggested that a college or university can no longer ignore the potential instructional use of technology and still maintain institutional viability

Although there is little doubt that computers and information technology are, and will become, increasingly powerful influences on how instruction and teaching are delivered in American colleges and universities, there is still some question as to their unique impact on students' overall cognitive or intellectual growth during college (Ehrmann, 1995, Kuh & Vesper, 1999) As argued by Green, "We need to be honest about the gap between aspirations and performance, we don't yet have clear, compelling evidence about the impact of information technology on student learning and educational outcomes" (Green cited in Morrison, 1999, p 3)

To be sure there has been a substantial amount of research on the use of computers to assist or augment instruction Nearly all of that research, however, has focused on achievement in individual courses Kulik, Kulik, and Cohen (1980) and Kulik and Kulik (1991) performed a series of meta-analyses on 149 studies of computer-based instruction in post-secondary settings conducted through 1991 The studies came from published and unpublished papers, and from dissertations On average, college students taught by computer-based methods had about a 0 31 standard deviation advantage in specific course learning over their counterparts who received instruction without computers Not surprisingly, perhaps, the largest positive impact came in highly structured approaches where the computer evaluates a student's test performance and guides him or her to appropriate instructional resources (i e , computer-managed instruction)

Interestingly, this rather impressive series of literature reviews by Kulik, Kulik, and Cohen (1980) and Kulik and Kulik (1991) has become something of an ongoing and vigorously contested debate in the educational technology field Clark (1991, 1994) has argued that the results of such meta-analyses are questionable because the medium of instruction doesn't influence course learning, the quality of teaching and instruction does The essence of his argument appears to be that studies comparing the relative advantage for student achievement of one instructional medium (e g , computers) over another (e g , lecture) will inevitably confound the instructional medium with the quality or type of instruction received Thus, all the benefits attributed to computers could be explained by the specific teaching methods they support or augment (Ehrmann, 1995)

On the other, or at least a different, side of this debate Kozma (1991, 1994a, 1994b) has argued that the specific ways technology or computers are employed is not irrelevant to instruction or achievement Some types of computer applications may, indeed, be particularly effective in supporting some kinds of instructional approaches or learning goals, with some kinds of learners In effect, information technology applications may interact with learner characteristics The essence of Kozma's argument would appear to be that it is probably fruitless to focus on computers as a conveyer of some type of instructional approach Rather, what counts is how computers, integrated with instructional approaches, can facilitate knowledge construction and meaning-making on the part of students

More recent research on other computer applications has been inconclusive, but it has suggested an important direction for future inquiry. Dillon & Gabbard (1998) conducted a quantitative synthesis of the learning outcomes of hypermedia. Hypermedia or hypertext is a computer-enabled technology that permits random access to great volumes of information. It allows for substantial student control over the pace and timing of access as opposed to a structured, organized, linear scheme of access. An example is the World Wide Web. A synthesis of the experimental studies conducted with undergraduate samples found small and statistically nonsignificant learning differences between hypermedia- and text (paper)-based instruction. However, consistent with Kozma's (1994a, 1994b) argument, Dillon and Gabbard did find that the effectiveness of hypermedia interacted with learner characteristics. Specifically, the largest learning benefits accrued to the highest ability students, suggesting that these students were most able to effectively manipulate hypertext to construct new knowledge.

While our review of the literature found substantial work focusing on computer use in individual courses and its subsequent influence on learning specific to that course, we found little research on the impacts of computer use during college on more broad-based cognitive or intellectual outcomes. Indeed, the only study of this scope we uncovered was a recent investigation by Kuh and Vesper (1999). Kuh and Vesper analyzed data from 125,224 undergraduates at 205 four-year institutions who completed the College Student Experiences Questionnaire (CSEQ) (Pace, 1990) between 1990 and 1997. The CSEQ measures students' level of involvement in a large number of dimensions of the academic and nonacademic experience of college as well as self-reported gains in 23 areas. With controls for such factors as college grades, age, gender, work responsibilities, parental education, and educational aspirations, a measure of the extent to which students felt they gained a familiarity with computers was significantly and positively associated with self-reported gains in such areas as self-directed learning, writing clearly, and problem solving.

Although the Kuh and Vesper (1999) study is an important first step in our understanding of the contribution of computer technology to the broad-based cognitive outcomes of college, it nevertheless has a number of limitations that are more the result of data limitations than the way in which the study was conducted. First, data limitations meant that the study was not able to control for such variables as precollege ability or academic motivation, ethnicity, full or part-time enrollment, types of coursework taken, or the quality of instruction received. Any or all of these factors might confound the relationship between computer use and the cognitive outcomes of college. Second, the study sample was composed entirely of students from four-year institutions. Thus, it cannot tell us if the effects of computer use are the same in two- and four-year institutions. Finally, the cognitive outcome measures were self-reported gains. Although there is evidence to suggest moderate correlations between self-reports and objective measures (Pike, 1995), self-reports on the CSEQ still have the problems of response set (Pascarella & Terenzini, 1991) and the halo effect (Pike, 1999). This may make it difficult to determine which dimensions of cognitive growth are really being uniquely influenced by computer use (Pike, 1999).

The present study sought to partially replicate and extend the Kuh and Vesper (1999) study by estimating the extent to which computer and e-mail use influenced standardized measures of cognitive or intellectual growth during the first year of college. Specifically, the study had several purposes. First, it sought to estimate the extent to which student background characteristics, institutional characteristics, and the academic and nonacademic experience of college explained computer and e-mail use during the first year of college. Second, it estimated the unique or net effects of computer and e-mail use on standardized measures of end-of-first-year cognitive outcomes while controlling for an extensive battery of confounding influences. These included: a parallel precollege measure of the cognitive outcome assessed, precollege academic motivation, ethnicity, the academic selectivity of the institution attended, full- or part-time enrollment, patterns of coursework taken, and the quality of instruction received. Third, the study sought to determine if the cognitive effects of computer or e-mail use differed in magnitude and/or direction at two-year and four-year institutions. Finally, the study attempted to determine if the cognitive effects of computer and e-mail use are general or conditional. That is, are the effects the same in magnitude and/or direction for all students (general effects), or do they differ in magnitude and/or direction for different kinds of students (conditional effects)?

Research Methods

Samples

Institutional sample. The sample in this study consisted of incoming first-year students at 18 four-year and 5 two-year colleges and universities located in 16 states. Institutions were chosen from the National Center on Education Statistics Integrated Postsecondary Education Data System (IPEDS) to represent differences in colleges and universities nationwide on a variety of characteristics, including institutional type and control (e g , private and public research universities, private liberal arts colleges, public and private comprehensive universities, two-year colleges, historically Black colleges), size, location, patterns of student residence, and the ethnic distribution of the undergraduate student body Our sampling technique produced a sample of institutions with a wide range of selectivity For example, we included some of the most selective institutions in the country and some that were essentially open admission

Student sample The individuals in the sample were students participating in the National Study of Student Learning (NSSL), a large longitudinal investigation of the factors that influence learning and cognitive development in college The initial sample was selected randomly from the incoming first-year class at each participating institution The students in the sample were informed that they would be participating in a national longitudinal study of student learning and that they would receive a cash stipend for their participation in each data collection They were also informed that any information they provided would be kept confidential and never become part of their institutional records

Data Collection

Initial data collection The initial data collection was conducted in the fall of 1992 with 3,840 students from the 23 institutions This first data collection lasted approximately three hours, and students were paid a stipend of $25 each for their participation The data collected included an NSSL precollege survey that sought information on student demographic characteristics and background, as well as aspirations, expectations of college, and orientations toward learning Participants also completed Form 88A of the Collegiate Assessment of Academic Proficiency (CAAP), developed by the American College Testing Program (ACT) to assess selected general skills typically acquired by students during the first two years of college (American College Testing Program, 1989) The total CAAP consists of five 40-minute, multiple-choice test modules reading comprehension, mathematics, critical thinking, writing skills, and science reasoning The reading comprehension, mathematics, and critical thinking modules of the CAAP were administered during the fall 1992 data collection A brief description of each follows

The CAAP reading comprehension test is composed of 36 items that assess reading comprehension as a product of skill in inferring, reasoning, and generalizing The test consists of four 900-word prose passages designed to represent the level and kinds of reading students commonly encounter in college curricula, including topics in fiction, humanities, social sciences, and natural sciences The K-R 20 internal consistency reliabilities for the reading comprehension test range between 0 84 and 0 86 The mathematics test consists of 35 items designed to measure a student's ability to solve mathematical problems The test emphasizes quantitative reasoning rather than formula memorization and includes algebra (four levels), coordinate geometry, trigonometry, and introductory calculus The K-R 20 reliability coefficients for the mathematics test range between 0 79 and 0 81 The critical thinking test is a 32–item instrument designed to measure a student's ability to clarify, analyze, evaluate, and extend arguments The test consists of four passages in a variety of formats (e g , case studies, debates, dialogues, experimental results, statistical arguments, editorials) Each passage contains a series of arguments that support a general conclusion and a set of multiple choice test items The K-R 20 reliability coefficients for the critical thinking test ranged from 0 81 to 0 82 In a pilot test of instruments for use in the NSSL, the critical thinking test of the CAAP correlated 0 75 with the total score on the Watson-Glaser Critical Thinking Appraisal (Pascarella, Bohr, Nora, & Terenzini, 1995)

Gains in CAAP module scores during college have been shown to be significantly influenced by a number of educationally relevant factors These include full versus part-time enrollment (Doyle, Edison, & Pascarella, 1998, Pascarella, Bohr, Nora, & Terenzini, 1996), the quality of instruction received (Edison, Doyle, & Pascarella, 1998, Pascarella, Edison, Nora, Hagedorn, & Braxton, 1996), the type of coursework taken (Bohr, 1994–1995, Terenzini, Springer, Yaeger, Pascarella, & Nora, 1994), the nature and quality of interactions with student peers (Whitt, Edison, Pascarella, Nora & Terenzini, 1999), and principles of good practice in postsecondary education (Chickering & Gamson, 1987), such as high expectations of student performance and engagement in active learning (Doyle, Edison, & Pascarella, 1998)

Follow-up data collection The follow-up data collection was conducted in spring 1993 This data collection took about three and one half hours and included Form 88B of the CAAP reading comprehension, mathematics, and critical thinking modules, the College Student Experiences Questionnaire (CSEQ, Pace, 1984, 1990), and a follow-up instrument developed for the NSSL The CSEQ and the NSSL follow-up instruments were used to measure a wide range of students' classroom and out-of-class experiences These included such factors as place of residence, work responsibilities, kinds of coursework taken, number of credit hours completed, amount of time spent studying, perceptions of the overall nature of instruction received, and extent of computer and e-mail use

Students were paid a stipend of $35 each for their participation in the follow-up data collection Of the original sample of 3,840 students who participated in the fall 1992 testing, 2,685 participated in the spring 1993 data collection for a first-year follow-up response rate of 69 92% (Nonrespondents included initial participants who persisted at their institution but dropped out of the study and those who dropped out of the institution) To provide at least some adjustment for potential bias by sex, race/ethnicity, and institution in the sample of students persisting in the study, a sample weighting algorithm was developed Follow-up participants in each institution were weighted up to the institution's end-of-first-year population by sex (male or female) and race/ethnicity (Caucasian, Black, Hispanic, other) Thus, for example, if Institution A had 100 Black women who completed their first year of college and 25 Black women in the sample, each Black woman in the sample was given a sample weight of 4 An analogous weight was computed for participants in each Sex x Race/Ethnicity cell in each institution (Characteristics of each institution's student population and the pertinent enrollment data on each student at the end of the college year were acquired from institutional records) Applying sample weights in this manner allowed us to adjust not only for sample bias by sex and race/ethnicity, but also for sample bias (i e , differential rates of sample persistence in the study) by institution

Variables

There were two independent variables of primary interest in the study These were *extent of computer use* and *extent of e-mail use* Information on these variables was taken from 6 items embedded in the CSEQ and NSSL follow-up questionnaire All items were on a 4-point response metric Extent of computer use was based on a 5-item scale Three items asked students to indicate how much during the first year of college they had engaged in use of computers for such activities as class assignments, library searches, or word processing A fourth item asked the extent to which their coursework in the first year of college required them to learn how to use computers or word processors The possible student responses to each item were adapted from the College Student Experiences Questionnaire (Pace, 1984, 1990), and were 1 = never, 2 = occasionally, 3 = often, or 4 = very often The fifth item of the scale asked students to estimate the extent to which they had gained or made progress during the first year of college in acquiring familiarity with the use of computers The possible responses were 1 = very little, 2 = some, 3 = quite a lot, or 4 = very much The internal consistency (alpha) reliability for the scale was 0 73 Table 1 presents the constituent items for the computer use scale, as well as the correlation of each item with the total score

TABLE 1

Alpha Reliabilities and Item-Total Score Correlations for Computer Use Scale

Scale/Item	Item-Total Score Correlations	Alpha Reliability
COMPUTER USE SCALE		0 73
Acquired familiarity with the use of computers	0 46	
Used computers for library searches	0 34	
Used computers for class assignments	0 63	
Engaged in computer word processing	0 55	
Courses required me to learn how to use computers or word processors	0 52	

E-mail use was measured with a single item that asked students to indicate the extent to which they used electronic mail to communicate with course instructors or other students during the first year of college The possible responses were 1 = never, 2 = occasionally, 3 = often, and 4 = very often This item was originally included in the computer use scale, however, it had an extremely low correlation with the scale total score and depressed the internal consistency reliability of the scale Thus, it was removed from the computer use scale and treated as a separate dimension of information technology utilization

There were four different dependent variables in the study The first dependent variable was a composite measure of end-of-first-year cognitive development created by combining the spring 1993 scores for each student on the CAAP reading comprehension, mathematics, and critical thinking modules This measure was constructed in two steps First, each of the CAAP modules was standardized to put all modules on the same metric The composite score was then computed by summing across the standardized scores This composite measure provided an objective, standardized estimate of students' intellectual or cognitive development at the end of the first year of college that was comparable across institutions Not surprisingly, all three constituent modules had very high intercorrelations Indeed, the alpha (internal consistency) reliability for the end-of-first-year composite measure was 0 83 The other three dependent variables were the individual CAAP module scores constituting the composite measure end-of-first-year reading comprehension, end-of-first-year mathematics, and end-of-first-year critical thinking

A number of extraneous factors might covary with a student's cognitive development as well as his or her extent of computer use during college Consequently, the study also incorporated a number of potentially confounding, or control, variables In selecting control variables for our analyses, we were guided by evidence on the factors independently influencing learning and cognitive development in college (Astin, 1977, 1993, Astin & Panos, 1969, Kuh, 1993, Pascarella & Terenzini, 1991). Two basic categories of potentially confounding, or control, variables were considered—precollege characteristics and measures of students' experiences in college. The precollege characteristics included precollege (fall 1992) measures of cognitive development, race/ethnicity, socioeconomic status, precollege academic motivation, age, and gender. The precollege estimates of cognitive development were exact parallel measures of each of the four end-of-first-year cognitive outcomes (i.e., composite cognitive development, reading comprehension, mathematics, and critical thinking). Students' experiences in college included total credit hours completed, work responsibilities, on- or off-campus residence, hours per week spent studying, number of courses taken in five different areas, extent of teacher instructional skill and clarity in the overall instruction received during the first year of college, and extent of teacher organization and preparation in the overall instruction received during the first year of college. The last two control variables were included because, consistent with the argument of Clark (1994), we judged it important to be able to disaggregate the effects of computer and e-mail use from the effects of the quality of instruction received. A number of research syntheses of teacher behavior and student achievement have identified teacher organization and teacher clarity as the two dimensions of teaching behavior having the highest correlations with student course achievement (Feldman, 1997, Pascarella & Terenzini, 1991).

Because evidence also suggests that the overall cognitive ability of an institution's student body can influence the climate of an institution (Pascarella & Terenzini, 1991), an estimate of aggregate student cognitive ability was included as a control variable. This estimate was the average precollege (fall 1992) composite cognitive development score (based on the CAAP reading comprehension, mathematics, and critical thinking modules) for the sample of first year students at each of the 23 institutions in the study. Each student in the sample was assigned the mean estimate of student-body cognitive development at his or her institution. Operational definitions and, where appropriate, reliabilities of all variables are shown in Table 2.

Analyses

In the first stage of the analyses we sought to determine the significant predictors of computer and e-mail use during the first year of college. This was accomplished by regressing first-year computer and e-mail use

TABLE 2

Variable Definitions

Category/Variable

INDEPENDENT VARIABLES

Individual Precollege Scores Fall 1992 CAAP composite cognitive development, reading comprehension, mathematics, and critical thinking scores, each employed in the prediction of parallel end-of-first-year cognitive outcomes (i e , CAAP composite cognitive development, reading comprehension, mathematics, and critical thinking) The alpha reliabilities for composite cognitive development, reading comprehension, mathematics, and critical thinking are 0 83, 0 84–0 86, 0 79–0 81, and 0 81–0 82, respectively (ACT, 1989)

Average Precollege Composite Cognitive Development at the Institution Attended Estimated by the average level of precollege composite cognitive development in the sample of each of the 23 institutions in the study Each student was given the mean score of the sample at his or her institution

Female 1 = female, 0 = male

Age A continuous variable calculated by subtracting year of birth from 1992

Socioeconomic Status Average of parental education and income

Precollege Academic Motivation An 8-item, Likert-type scale (5 = strongly agree to 1 = strongly disagree) with an internal consistency reliability of 0 65 The scale items were based on existing research on academic motivation Examples of constituent items are "I am willing to work hard in a course to learn the material, even if it won't lead to a higher grade", "When I do well on a test it is usually because I was well prepared, not because the test was easy", "In high school I frequently did more reading in a class than was required simply because it interested me", and "In high school I frequently talked to my teachers outside of class about ideas presented during class "

Black 1 = Black, 0 = Non-Black[a]

White 1 = White, 0 = Non-White[a]

Hispanic 1 = Hispanic, 0 = Non-Hispanic[a]

Total Credit Hours Completed Number of credit hours completed during the academic year

Hours Per Week Spent Studying Single-item, 6-point self-report of hours per week studying, where 1 = none to 6 = more than 20 hours

On-Campus Residence 1 = lived on campus, 0 = lived off campus

Hours Worked Per Week Combination of average number of hours of on- and off-campus work per week during the school year, coded 1 = none to 9 = more than 35

Arts and Humanities Courses Taken Number of college courses taken during the first year of college in art history, art appreciation, studio art, dance, theater, music appreciation, music linguistics, classics, or religious studies

Natural Sciences and Engineering Courses Taken Number of courses taken during the first year of college in astronomy, biology, chemistry, physics, geology, zoology, microbiology, and engineering

Social Science Courses Taken Number of college courses taken during the first year of college in anthropology, audiology/speech pathology, child and family studies, communications, economics, geography, history, political science, psychology, sociology, or social work

Mathematics Courses Taken Number of college courses taken during the first year of college in pre-algebra, calculus, statistics, computer science, geometry, matrix algebra, accounting, or business math

Technical/Preprofessional Courses Taken Number of college courses taken during the first year of college in drawing, drafting,architectural design, criminology, education, business, physical therapy, nursing, computer programming, or pharmacy

Teacher Organization and Preparation A 5-item, self-report scale measuring the extent to which a student received instruction in their institution that was well organized (e g , "presentation of material is well organized," "instructors are well prepared for class," "class time is used effectively"), alpha reliability = 0 87

Teacher Instructional Skill and Clarity A 5-item, self-report scale measuring the extent to which a student received skilled and clear instruction in their institution (e g , "instructors give clear explanations," "instructors make good use of examples," "instructors effectively review and summarize"), alpha reliability = 0 86

TABLE 2 (*Continued*)

Category/Variable
Computer Use Scale A 5-item, Likert-type scale (4 = very often to 1 = never) measuring the extent to which students use computers in college (all items shown in Table 1)
E-mail Use Single-item, Likert-type scale (4 = very often to 1 = never) measuring the extent to which students use e-mail in college
DEPENDENT VARIABLES
End-of-First-Year Composite Cognitive Development Individual student scores on a composite of the Spring 1993 CAAP Reading Comprehension, Mathematics, and Critical Thinking Modules
End-of-First-Year Reading Comprehension Individual student scores on the Spring 1993 CAAP Reading Comprehension Module
End-of-First-Year Mathematics Individual student scores on the Spring 1993 CAAP Mathematics Module
End-of-First-Year Critical Thinking Individual student scores on the Spring 1993 CAAP Critical Thinking Module

[a]Omitted category = Asian American

on all other variables in the analytic model (i e , student precollege characteristics, the average precollege composite cognitive development at the institution attended, and measures of students' academic and nonacademic experience of college)

In the second stage of the analyses we estimated the direct causal effects of computer and e-mail use on end-of-first-year cognitive outcomes These estimates were derived by regressing each of the four end-of-first-year cognitive outcomes on the computer use and e-mail use measures plus all other variables in the analytic model (i e , student precollege characteristics, the average precollege composite cognitive development at the institution attended, and students' academic and nonacademic experiences of college)

In the final stage of the analyses we tested for the presence of conditional effects of computer and e-mail use on cognitive development A series of cross-product (or interaction) terms was computed between the computer and e-mail use variables on the one hand and all other variables in the direct-effects equation on the other These were then added to the direct-effects equation The addition of the sets of cross-product terms was done separately for computer and e-mail use A statistically significant increase in explained variance (R^2) attributable to the entry of the set of cross-product terms (over and above the direct-effects equation) would indicate that the net effects of computer and/or e-mail use on first-year cognitive outcomes differ in magnitude for different kinds of students (Pedhazur, 1982)

Of the 2,685 students participating in the spring 1993 follow-up data collection, complete data for the different analyses conducted were available for 2,460 students (273 at the 5 community colleges and 2,187 at the 18 four-year institutions) A preliminary analysis indicated significant differences in the factors influencing computer and e-mail use for two- and four-year colleges Similarly, there were significant differences in the estimated cognitive effects of computer and e-mail use between two- and four-year colleges Consequently separate analyses were conducted for students attending two- and four-year colleges The weighted samples, adjusted to actual sample sizes to obtain correct standard errors, were used in one set of analyses A parallel set of analyses was conducted with the unweighted samples The results of both sets of analyses are reported Because of its large (unweighted) sample size, a critical alpha level of 0 01 was used in analyses of the four-year college sample

Results

Results of our main analyses are presented in four sections differences between two- and four-year colleges in computer and e-mail use, differences between two- and four-year colleges in the factors influencing computer and e-mail use, estimates of the direct causal effects of computer and e-mail use on end-of-first-year cognitive outcomes, and conditional effects of computer and e-mail use on first-year cognitive outcomes Focus is placed on those findings that are consistent across the unweighted and weighted sample estimates

Differences between two- and four-year colleges in computer and e-mail use Not unexpectedly, given previous evidence (e g , Gladieux & Swail, 1999), there was substantially greater computer and e-mail use by four-year college students than by two-year college students Simple t-tests for both the computer and e-mail use scales were significant at $p <$ 0 01 for both unweighted and weighted samples Computing an effect size by taking the difference between means for the two- and four-year college samples and dividing them by the respective pooled standard deviations of the computer or e-mail use variables (e g , Hays, 1994) yield an estimated four-year college advantage of between 0 30 and 0 33 of a standard deviation in computer use, and between 0 32 and 0 42 of a standard deviation in e-mail use However, these advantages were reduced substantially when we introduced statistical controls for student precollege characteristics In the presence of such controls, three of the four mean differences between two- and four-year colleges became nonsignificant When adjusted for the effects of student precollege characteristics, the estimated four-year college advantage for computer use shrank to a range between 0 06 to 0 20 of a standard deviation The corresponding range for e-mail use was between 0 08 to –0 06 of a standard deviation

Thus, consistent with previous research, our findings suggest a significant gap between two- and four-year college students in the use of computers and electronic mail However, within the limitations of the sample we analyzed, it would appear that most of that gap may be explainable by the kinds of students enrolling at two-year and four-year colleges

Factors influencing computer and e-mail use at two- and four-year colleges Table 3 summarizes the unweighted and weighted estimates of those factors having significant net effects on computer and e-mail use in two-year and four-year colleges For two-year college students computer use was enhanced by being a younger student, by hours spent studying and by the number of first-year courses taken in mathematics and technical/preprofessional areas Study time and technical/preprofessional courses likewise positively influenced computer use for students at four-year colleges However, unlike the two-year sample, computer use by four-year college students was also enhanced by their precollege academic motivation Taking courses in the arts and humanities negatively influenced computer use for four-year college students, and the effects were similar in direction and magnitude for two-year college students—though only the weighted estimate was statistically significant

Interestingly, we found little to suggest that background factors such as precollege cognitive development, gender, and socioeconomic status, or measures of effective teaching during college, had net influences on computer use in the first year of college for either two- or four-year college students Similarly, there was little consistent evidence to suggest that ethnicity played a significant net role in computer use at four-year colleges In two-year colleges, however, there was evidence that Latino students were at a distinct disadvantage in terms of computer use relative to other students In the unweighted sample Latino students not only had significantly lower computer use than Asian Americans (the group coded 0), but a series of post hoc comparisons indicated that they also had significantly lower computer use scores than either Caucasian or African American students In the weighted sample Latino computer use was lower than, but did not differ significantly from that of Asian American students However, post hoc comparisons indicated that Latino students did have significantly lower computer use than either Caucasian or African American students

Use of electronic mail by two-year college students was negatively influenced by precollege composite cognitive development, age, and being Latino For their counterparts at four-year colleges e-mail use was also negatively influenced by age, as well as by being African American and

TABLE 3

Predictors of Computer and E-mail Use During the First Year of College

	Unweighted Sample				Weighted Sample			
	Two-Year		*Four-Year*		*Two-Year*		*Four-Year*	
Predictor	Computer	E-mail	Computer	E-mail	Computer	E-mail	Computer	E-mail
Precollege composite cognitive development	−0 028 (−0 016)	−0 079** (−0 258)	−0 051 (−0 037)	0 002 (0 004)	−0 044 (−0 024)	−0 073** (−0 228)	−0 059 (−0 042)	0 006 (0 014)
Average precollege composite cognitive development at the institution attended	0 083 (0 014)	−0 014 (−0 014)	0 095 (0 046)	0 109** (0 064)	0 707* (0 154)	−0 007 (−0 009)	0 277** (0 120)	0 151** (0 222)
Age	−0 108** (−0 215)	−0 017** (−0 196)	−0 018 (−0 026)	−0 013** (−0 056)	−0 093** (−0 170)	−0 015** (−0 157)	−0 021 (−0 031)	−0 012** (−0 058)
Female	0 605 (0 072)	−0 131 (−0 092)	−0 093 (−0 013)	−0 119** (−0 052)	0 810 (0 102)	−0 059 (−0 042)	−0 257 (−0 038)	−0 212** (−0 107)
African American	1 203 (0 088)	0 011 (0 005)	−0 004 (−0 000)	−0 324** (−0 115)	0 871 (0 052)	−0 112 (−0 038)	0 005 (0 006)	−0 242** (−0 087)
Latino	−2 052* (−0 203)	−0 366* (−0 211)	0 164 (0 017)	−0 107 (−0 034)	−1 166 (−0 128)	−0 568** (−0 355)	−0 019 (−0 002)	−0 190 (−0 072)
Caucasian	1 637 (0 194)	−0 028 (−0 019)	0 613** (0 089)	−0 030 (−0 013)	0 969 (0 121)	−0 243 (−0 152)	−0 084 (−0 012)	−0 189** (−0 094)
Socioeconomic background	0 026 (0 013)	0 003 (0 008)	−0 003 (−0 018)	−0 018 (−0 039)	0 072 (0 042)	−0 023 (−0 077)	−0 005 (−0 004)	−0 010 (−0 024)
Precollege academic motivation	0 089 (0 012)	−0 024 (−0 018)	0 966** (0 151)	0 207** (0 100)	−0 181 (−0 024)	−0 089 (−0 068)	0 987** (0 156)	0 168** (0 091)
Credit hours completed	0 278* (0 116)	0 005 (0 011)	0 106 (0 042)	0 015 (0 019)	−0 117 (−0 052)	0 008 (0 020)	0 143** (0 060)	−0 037 (−0 046)
Work responsibilities	0 050 (0 038)	−0 001 (−0 003)	0 055 (0 043)	0 004 (0 010)	0 097 (0 073)	−0 002 (−0 010)	0 080** (0 068)	0 003 (0 010)
On–campus residence	0 496 (0 046)	−0 102 (−0 068)	0 728** (0 112)	0 274** (0 131)	0 686 (0 087)	−0 063 (−0 041)	0 271 (0 044)	0 094 (0 052)
Hours spent studying	0 443* (0 141)	−0 027 (−0 050)	0 324** (0 126)	0 029** (0 035)	0 582** (0 200)	−0 001 (−0 017)	0 311** (0 121)	0 027 (0 036)
Technical/preprofessional courses	0 313** (0 164)	−0 001 (−0 004)	0 308** (0 145)	0 090** (0 131)	0 441** (0 213)	0 001 (0 001)	0 264** (0 097)	0 084** (0 105)

TABLE 3 (*Continued*)

	Unweighted Sample				Weighted Sample			
	Two-Year		*Four-Year*		*Two-Year*		*Four-Year*	
Predictor	Computer	E-mail	Computer	E-mail	Computer	E-mail	Computer	E-mail
Arts and humanities courses	−0.440 (−0.020)	−0.280 (−0.073)	0.321** (0.054)	0.045 (0.024)	−1.988* (−0.103)	−0.128 (−0.038)	−0.496** (−0.063)	0.009 (0.004)
Mathematics courses	0.783* (0.131)	0.068 (0.067)	0.254 (0.039)	0.107 (0.052)	0.958* (0.151)	0.071 (0.064)	0.185 (0.027)	0.054 (0.027)
Social science courses	−0.509 (−0.044)	−0.124 (−0.063)	−0.438** (−0.062)	−0.154** (−0.067)	−0.606 (−0.050)	−0.038 (−0.018)	−0.370 (−0.046)	−0.056 (−0.024)
Natural science and engineering cources	−0.658 (−0.038)	−0.092 (−0.031)	−0.252 (−0.029)	0.045 (0.016)	−1.038 (−0.071)	−0.058 (−0.023)	−0.118 (−0.014)	0.017 (0.007)
Teacher instructional skill and clarity	−0.076 (−0.042)	−0.004 (−0.013)	0.004 (0.030)	−0.008 (−0.018)	0.031 (0.015)	−0.006 (−0.017)	0.009 (0.006)	−0.004 (−0.009)
Teacher organization and preparation	−0.042 (−0.022)	−0.035 (−0.106)	0.018 (0.012)	0.011 (0.021)	−0.107 (−0.049)	−0.041 (−0.108)	0.054 (0.033)	−0.002 (−0.005)
R^2	0.354**	0.137**	0.093**	0.118**	0.397**	0.147**	0.075**	0.104**

NOTE. Top number is the unstandardized (b) regression coefficient, number in parentheses is the standardized (beta) regression coefficient.
*$p < 0.05$ **$p < 0.01$

female. As with computer use, it was positively influenced by four-year college students' precollege academic motivation and by their taking technical/preprofessional courses.

Estimated cognitive effects of computer and e-mail use. Table 4 summarizes the estimated causal effects of computer and e-mail use on the four end-of-first-year cognitive outcomes. (The footnote of the Table lists the control variables specified in each equation.) The first major finding was that there were significant regression coefficient differences between the two- and four-year samples on all but one of the outcomes (estimated effects of computer use on critical thinking in the weighted sample). Put differently, the cognitive impacts of computer use during the first year of college differed significantly and consistently for two-year versus four-year college students.

As Table 4 indicates, neither computer nor e-mail use had significant net effects on any of the end-of-first-year cognitive outcomes for the four-year college sample. For the two-year college students, however, the picture was quite different. In both the unweighted and weighted estimates computer use had modest, but significant positive effects on the composite measure of cognitive development and on reading comprehension. For both mathematics and critical thinking the estimated effects of computer use were not statistically significant. Largely the opposite held for the estimated effects of e-mail use. For both unweighted and weighted estimates, and across all four cognitive measures, the effects of e-mail use were significant and negative–though, once again, modest in magnitude.

Conditional cognitive effects of computer and e-mail use. The sets of cross-product terms made significant increases in R^2 in slightly over a third of the conditional effects analyses we conducted. However, using the criterion of accepting as robust only those conditional effects that were significant in both the unweighted and weighted estimates, we uncovered one significant conditional effect for two-year college students and four significant conditional effects for the four-year college sample. In the two-year college sample we found a significant Computer Use x E-mail Use conditional effect in the prediction of composite cognitive development. To determine the nature of the conditional effect we divided the samples at the mean of the computer use scale into "low" and "high" computer use, and then reran the direct effects equations. The results indicated that high computer use in two-year colleges tended to reduce in magnitude the negative effects of e-mail use on end-of-first-year composite cognitive development. For the high computer users the unstandardized coefficients for e-mail use ranged between -0.086 to -0.103 (both significant at $p < 0.05$), while for the low computer users the

TABLE 4

Estimated Direct Causal Effects of Computer and E-mail Use on End-of-First-Year Cognitive Outcomes

	Unweighted Sample				Weighted Sample			
	Composite Cognitive Development	Reading Comprehension	Mathematics	Critical Thinking	Composite Cognitive Development	Reading Comprehension	Mathematics	Critical Thinking
PART A TWO-YEAR COLLEGES								
Computer use	0 015* (0 077)	0 219** (0 124)	0 073 (0 050)	0 077 (0 054)	0 016* (0 083)	0 204** (0 113)	0 087 (0 069)	0 047 (0 034)
E-mail use	−0 150** (−0 130)	−1 615** (−0 156)	−1 105** (−0 129)	−1 263* (−0 127)	−0 162** (−0 142)	−1 621** (−0 157)	−0 994* (−0 118)	−1 152** (−0 153)
R^2 Total Model	0 794**	0 602**	0 604**	0 688**	0 790**	0 605**	0 584**	0 710**
PART B FOUR-YEAR COLLEGES								
Computer use	0 0009 (0 003)	0 0001 (0 000)	−0 017 (−0 009)	0 019 (0 010)	0 001 (0 006)	−0 014 (−0 007)	0 001 (0 001)	0 032 (0 016)
E-mail use	−0 009 (−0 012)	−0 102 (−0 016)	−0 028 (−0 004)	−0 111 (−0 018)	−0 016 (−0 020)	−0 198 (−0 029)	−0 167 (−0 024)	−0 014 (−0 007
R^2 Total Model	0 788**	0 619**	0 688**	0 637**	0 778**	0 584**	0 699**	0 629**

NOTES Top number is the unstandardized (b) regression coefficient, number in parentheses is the standardized (beta) regression coefficient Total regression model included controls for individual precollege composite cognitive development, reading comprehension, mathematics, or critical thinking (depending on the end-of-first-year outcome predicted), the average estimated precollege composite cognitive development of the student body at the institution attended, age, sex, ethnicity/race, socioeconomic background, precollege academic motivation, cumulative credit hours completed, work responsibilities, on- or off-campus residence, hours per week spent studying, number of courses taken in five different areas (technical/preprofessional, arts and humanities, mathematics and statistics, social sciences, natural sciences and engineering), extent of teacher clarity, and extent of teacher organization in the instruction received

*$p < 0\ 05$ **$p < 0\ 01$

e-mail coefficients ranged between –0 238 and –0 268 (both significant at $p < 0\;01$)

In the four-year sample we found two conditional effects in the prediction of composite cognitive development E-mail Use x Individual-Level Precollege Composite Cognitive Development, and E-mail Use x Average Estimated Precollege Cognitive Development of students at the institution attended In both cases we split the sample at the mean of the precollege composite cognitive development scale and reestimated the impact of e-mail for both halves of the sample In the first conditional effect e-mail use tended to have a negative effect on end-of-first-year composite cognitive development for students who scored relatively low on precollege composite cognitive development As level of precollege cognitive development increased, the effects of e-mail use became more positive For the lower half of students in precollege composite cognitive development the estimated unstandardized effects of e-mail use on end-of-first-year composite cognitive development ranged between –0 050 and –0 067 (both significant at $p < 0\;01$), while for students in the upper half of precollege composite cognitive development the effects of e-mail use were positive and ranged from 0 029 to 0 031 (both significant at $p < 0\;01$) The E-mail Use x Average Institutional-Level Composite Cognitive Development conditional effect was similar in nature For four-year college students attending institutions in the lower half of precollege student body composite cognitive development the estimated effects of e-mail use on end-of-first-year composite cognitive development ranged from –0 049 to –0 069 (both significant at $p < 0\;01$) Conversely, for students attending institutions in the upper half of precollege student body composite cognitive development the estimated effects of e-mail use on end-of-first-year composite cognitive development were slightly positive (ranging from 0 006 to 0 011), but statistically nonsignificant

We also uncovered two conditional effects in the four-year sample involving student ethnicity in the prediction of end-of-first-year reading comprehension, African American x Computer Use, and Latino x E-mail Use In the first conditional effect computer use was found to have significant positive effects (at $p < 0\;01$) on end-of-first-year reading comprehension for African American students (regression coefficients ranging from 0 175 to 0 301), and slightly negative, but nonsignificant, effects on end-of-first-year reading comprehension for all other students (regression coefficients ranging from –0 034 to –0 061) In the second conditional effect, e-mail use had significant (at $p < 0\;01$) negative effects on end-of-first-year reading comprehension for Latino students (regression coefficients ranging from –0 749 to –1 189), and small, nonsignificant effects on first-year reading comprehension for all other students (regression coefficients ranging from –0 023 to 0 015)

Additional Analyses

We conducted a set of additional analyses to determine if there were specific dimensions of the computer use scale that had significant positive effects on the end-of-first-year cognitive development measures To accomplish this we replicated the regression analyses conducted to estimate the cognitive effects of computer and e-mail use with one change Instead of entering the computer use scale in the equations, we entered each of the five dimensions constituting the computer use scale The results of these additional analyses are summarized in Table 5 As the Table indicates, three dimensions of the computer use scale had significant positive effects across both the unweighted and weighted samples In the two-year college sample using computers for classroom assignments had significant positive effects on both composite cognitive development and reading comprehension Similarly the extent to which courses required two-year college students to learn the use of computers or word processors significantly influenced critical thinking in the weighted sample, and had a marginally significant ($p < 0$ 07) effect on critical thinking in the unweighted sample In the four-year college sample the extent to which students engaged in computer word processing had small, but statistically significant positive effects on end-of-first-year reading comprehension

Discussion

The findings of this multi-institutional investigation of computer and e-mail use and their cognitive impacts during the first year of college lead to a number of conclusions First, as with previous analyses of information technology use in postsecondary education, we found significantly greater computer and e-mail use at four-year colleges than at two-year colleges However, these differences were reduced to nonsignificance in three of the four estimates we conducted when differences in student background characteristics (e g , age, race, gender, precollege cognitive ability) were taken into account This suggests the possibility that differences in the use of information technology between two- and four-year colleges may be more a function of differences in entering student characteristics than differences in institutional effects

Second, there were some similarities in the factors influencing (and not influencing) information technology use at two- and four-year

TABLE 5

Estimated Causal Effects of Specific Computer Use Dimensions on End-of-First-Year Cognitive Outcomes

Computer Use Dimension	Unweighted Sample Composite Cognitive Development	Unweighted Sample Reading Comprehension	Unweighted Sample Mathematics	Unweighted Sample Critical Thinking	Weighted Sample Composite Cognitive Development	Weighted Sample Reading Comprehension	Weighted Sample Mathematics	Weighted Sample Critical Thinking
PART A TWO-YEAR COLLEGES								
Acquired familiarity with	0 001	0 241	−0 050	−0 311	−0 002	0 200	−0 032	−0 488
the use of computers	(0 002)	(0 034)	(−0 009)	(−0 046)	(−0 005)	(0 028)	(−0 005)	(−0 060)
Used computers for	0 002	0 158	0 053	−0 231	0 021	0 139	0 156	−0 054
library searches	(0 002)	(0 023)	(0 009)	(−0 034)	(0 029)	(0 020)	(0 028)	(−0 001)
Used computers for	0 059*	0 841*	0 216	0 248	0 060*	1 504**	0 263	0 104
class assignments	(0 083)	(0 133)	(0 041)	(0 040)	(0 086)	(0 164)	(0 050)	(0 017)
Engaged in computer	−0 003	−0 118	0 325	0 060	−0 004	−0 157	0 347	0 072
word processing	(−0 004)	(−0 003)	(0 067)	(0 011)	(−0 007)	(−0 027)	(0 072)	(0 013)
Courses required learning to use	0 016	−0 019	−0 301	0 595#	0 026	−0 189	−0 084	0 668*
computers or word processors	(0 020)	(−0 003)	(−0 040)	(0 085)	(0 031)	(−0 031)	(−0 014)	(0 090)
R^2 Total Model	0 795**	0 604**	0 606**	0 693**	0 792**	0 612**	0 632**	0 716**
PART B FOUR-YEAR COLLEGES								
Acquired familiarity with	0 013	−0 037	0 134	0 132	0 027	0 166	0 171	0 169
the use of computers	(0 015)	(−0 005)	(0 018)	(0 018)	(0 031)	(0 023)	(0 023)	(0 023)
Used computers for	−0 006	−0 211	−0 074	0 178	−0 003	−0 096	−0 032	0 096
library searches	(−0 007)	(−0 029)	(−0 010)	(0 025)	(−0 003)	(−0 013)	(−0 004)	(0 013)
Used computers for	−0 016	−0 057	−0 147	−0 146	−0 021	−0 169	−0 180	−0 004
class assignments	(−0 019)	(−0 008)	(−0 024)	(−0 021)	(−0 025)	(−0 029)	(−0 025)	(−0 001)
Engaged in computer	0 018	0 268**	0 175	0 131	0 018	0 266**	0 132	0 154
word processing	(0 025)	(0 043)	(0 028)	(0 021)	(0 025)	(0 044)	(0 021)	(0 025)
Courses required learning to use	−0 008	−0 036	−0 130	−0 140	−0 015	−0 153	−0 119	−0 147
computers or word processors	(−0 010)	(−0 005)	(−0 018)	(−0 020)	(−0 018)	(−0 022)	(−0 017)	(−0 025)
R^2 Total Model	0 789**	0 620**	0 689**	0 637**	0 779**	0 586**	0 699**	0 629**

NOTES Top number is the unstandardized (b) regression coefficient, number in parentheses is the standardized (beta) regression coefficient Total regression model included all controls designated in Table 4 (footnote), plus use of e-mail and each of the other specific computer use dimensions

$^{*}p < 0\ 05$ $^{**}p < 0\ 01$ $^{\#}p < 0\ 07$

colleges. Many of these findings were not particularly surprising. For example, both time spent studying and taking technical/preprofessional courses positively influenced computer use at both two- and four-year colleges, whereas age had a negative effect on e-mail use at both types of institutions. There was little to suggest that background factors such as precollege cognitive development, sex, and socioeconomic status, or the quality of instruction received during college directly influenced computer use at either two- or four-year schools.

Third, there were also some marked differences in the factors influencing information technology use at two- and four-year colleges. For example, precollege academic motivation positively influenced computer and e-mail use for four-year students but played little or no role in computer or e-mail use for students in two-year colleges. Similarly, age had a substantial negative influence on two-year college computer use, while it had only a trivial and nonsignificant influence on computer use for students in four-year colleges. (This finding may reflect the fact that there was a significantly larger variance in the age of two-year college students.) More significant, perhaps, is the fact that ethnicity played little or no role in computer use in four-year colleges, while it had a substantial net impact in two-year colleges. In the latter institutions Latino students tended to be substantially disadvantaged in computer use relative to other students. This conclusion needs to be interpreted with some caution, however, as the total number of Latino students across all five two-year colleges was only 36.

Fourth, we found substantial and statistically significant differences between students in two-year and four-year colleges in the impacts of both computer and e-mail use on end-of-first-year cognitive outcomes. In the presence of controls for an extensive battery of potentially confounding influences (e.g., parallel measures of precollege cognitive development, precollege academic motivation, age, ethnicity, full- or part-time enrollment, patterns of coursework taken, quality of instruction received), we found little to suggest that either computer or e-mail use by students in four-year colleges had anything but trivial and nonsignificant impacts on each of the four standardized cognitive measures employed in the study (i.e., end-of-first-year composite cognitive development, reading comprehension, mathematics, and critical thinking). Thus, for four-year college students we failed to replicate the significant, positive cognitive effects of gaining a familiarity with computers reported by Kuh and Vesper (1999). Conversely, with the same set of statistical controls in place, both computer and e-mail use were found to have nontrivial implications for the first-year cognitive growth of students in two-year colleges. The cognitive effects of computer and e-mail use for two-year college students, however, were in stark contrast to each other Computer use had significant positive effects on a composite measure of first year cognitive development as well as on first-year reading comprehension Its effects on mathematics and critical thinking were also positive but not statistically significant In this respect, at least, our findings are consistent with those of Kuh and Vesper (1999) On the other hand, the effects of e-mail use were significant and negative for all four cognitive outcomes

It is not readily apparent from our data exactly why information technology use plays a more predominant role in the first-year intellectual outcomes for community college students than it does for their counterparts at four-year institutions One possibility, however, has to do with the fact that substantial numbers of students in four-year colleges live on-campus, thereby affording them the opportunity to participate in a wide range of social, cultural, and extracurricular activities that may often have impacts on their intellectual and cognitive growth as powerful as that of their classroom experiences (Astin, 1993, Baxter Magolda, 1992, Inman & Pascarella, 1998, Kuh, 1993, 1995, Terenzini, Pascarella, & Blimling, 1996, Whitt et al , 1998) On the other hand, the vast majority of community college students live off-campus and commute to college Consequently, the intellectual impact of college may reside largely in their classroom experiences Support for this possibility is suggested in our analyses, which estimate the impacts of the constituent dimensions of the computer use scale For the community college sample it was use of computers in classroom situations that had the most pronounced impact on cognitive outcomes The extent to which community college students used computers for class assignments had positive effects on both reading comprehension and composite cognitive development, while the extent to which their courses required them to learn how to use computers or word processors positively influenced first-year critical thinking These same course- and classroom-focused uses of computers had little or no cognitive impacts for four-year college students

The only specific type of computer use with a significant cognitive impact for four-year college students was the extent to which they engaged in computer word processing Engaging in word processing had a significant, if quite modest, positive impact on reading comprehension during the first year of college Such a finding is not inconsistent with literacy research that suggests a strong link between the development of writing and reading skills (e g , Tierney & Shanahan, 1991) Indeed, we hypothesized that the positive effect of engaging in word processing on end-of-first-year reading comprehension might simply be a proxy for extent of involvement in writing or writing activities during the first year of college. Accordingly, we estimated several additional regression models that added different measures of first-year writing involvement to the equations predicting end-of-first-year reading comprehension in Table 5. These writing involvement measures included student self-reports of the number of essay exams in their courses and the number of term papers or other written reports completed during the first year of college. (Possible responses to both items, taken from the CSEQ, were 1 = none, to 5 = more than 20.) Another model included both CSEQ writing items plus the experience in writing scale taken from the CSEQ. This 10-item scale asks students to indicate (from 1 = never to 4 = very often) how frequently they engage in various writing activities. For example, "In your experience at this college during the current school year, about how often have you done each of the following: used a dictionary or thesaurus to look up the proper meaning of words, asked other people to read something you wrote to see if it was clear to them, revised a paper or composition two or more times before you were satisfied with it, and asked an instructor for advice and help to improve your writing?" Alpha reliability = 0.84.

The results of these analyses were quite similar to the results shown in Table 5 for end-of-first-year reading comprehension. Even when the writing involvement items were added to the regression equations the word processing variable remained a significant, positive predictor of first-year reading comprehension in all analyses. In the unweighted sample estimates the metric coefficients for the word processing variable ranged from 0.274 to 0.282 (both significant at $p < 0.01$), while in the weighted sample the corresponding coefficients ranged from 0.261 to 0.265 (both significant at $p < 0.01$). These coefficients are quite similar in magnitude to those shown for the effects of computer word processing on reading comprehension in Part B of Table 5. Such findings suggest that the net positive influence of engagement in computer word processing on students' reading comprehension cannot simply be explained away as a proxy for involvement in writing. Rather, it is possible that computer word processing involves distinct skills in aspects of composition and the organization of thought processes that independently enhance reading comprehension. The underlying cognitive process for this possible impact on reading comprehension is not apparent from our data. It certainly suggests a significant area for more focused inquiry.

The finding that electronic mail use had consistent and broad-based negative cognitive impacts for community college students was somewhat unexpected. This is particularly so as e-mail use had little or no cognitive impact for students at four-year colleges. One possible, if tentative, explanation may lie partially in what the e-mail use item measured in the NSSL data base As operationally defined, the e-mail use item asked not if students used e-mail as an integral part of instructional or course requirements, but only if e-mail was used to interact with other students or faculty Because two-year college students are more likely to work, have family responsibilities, and be less well prepared academically than their counterparts attending four-year colleges (Brint & Karabel, 1989, Dougherty, 1994, Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1995–1996) such potentially unfocused involvement with e-mail may serve to further diminish a more circumscribed amount of time that can be focused on academic work A second, and related, potential explanation (suggested by a JHE reviewer) is that two-year college students are using e-mail as a substitute for direct interaction with peers and faculty and thereby forgoing interpersonal experiences demonstrated to have important cognitive impacts (Astin, 1993, Kuh, 1995, Whitt et al , 1999)

Still another contributing factor to this finding may be that e-mail use in the NSSL two-year college sample tended to be negatively related to individual precollege cognitive development (see Table 3) Even though we control for precollege cognitive development in our regression specifications for end-of-first-year cognitive outcomes, it may be that the community college students least prepared for the academic demands of college are also the most likely to employ e-mail to seek help from other students or their instructors

A fifth major finding of the study is that the cognitive impacts of computer and electronic mail use differ in magnitude and, in some cases, direction for different kinds of students This was particularly the case for students attending four-year colleges At least one of these conditional effects, or interactions, was consistent with previous research Specifically, we found that, while electronic mail use had no general cognitive impacts for students attending four-year colleges, its impact on end-of-first-year composite cognitive development varied significantly in magnitude for students who began college with different levels of composite cognitive development Significant, positive first-year cognitive benefits from e-mail use accrued to those students at the relatively highest levels of precollege composite cognitive development As level of precollege cognitive development decreased, so too did the magnitude of the positive cognitive effects of using electronic mail In short, it appeared that the highest ability students were able to manipulate or convert unstructured electronic mail use, and attendant skills, into the largest cognitive gains during the first year of college Such a finding is quite consistent with Dillon and Gabbard's (1998) meta-analysis conclusion that the greatest learning benefits of hypertext accrue to the most academically capable students

Other conditional effects suggest that the cognitive impacts of computer and e-mail use also differ in magnitude for different ethnic/racial groups Specifically, African American students attending four-year colleges derived significantly greater first-year reading comprehension benefits from computer use than did other students, while for Latino students in four-year colleges e-mail use had significantly stronger negative effects on reading comprehension than it did for other students

Although specific conditional effects do not necessarily replicate well, particularly in correlational or nonexperimental research (Pascarella & Terenzini, 1991), the evidence from this study nevertheless suggests that the cognitive impacts of information technology may well vary in both magnitude and direction for different kinds of students In this sense the present study lends additional credence to Kozma's (1994a, 1994b) argument that we should expect the effects of specific information technologies to interact with learner characteristics or learning orientations Given the growing diversity of student characteristics and aptitudes in American postsecondary education (e g , Pascarella & Terenzini, 1998), the estimation of conditional effects may take on added importance in terms of finding the maximally beneficial fit between information technology applications and student capacities to use them effectively Future research that disregards the presence of such conditional or interaction effects may well mask important student variations in the cognitive benefits of information technology use

Summary and Limitations

A review of the literature suggests that, with the exception of Kuh and Vesper (1999), who employed self-report measures, this is likely the first large scale investigation to estimate the net cognitive impacts of information technology use in postsecondary education Employing an extensive battery of statistical controls, including parallel measures of precollege cognitive development, academic motivation, full- or part-time enrollment, types of coursework taken, and overall quality of instruction received, our findings suggest that the cognitive impacts of information technology use may vary in both magnitude and direction for different kinds of students and in different institutional contexts Moreover, different types of information technology (in the present study computer and electronic mail use) may have markedly different impacts With the exception of a small, positive impact of engagement in word processing on first-year gains in reading comprehension, there was little or no general cognitive impact of either computer or e-mail use for four-year college students Conversely, for two-year college students computer use, particularly when linked to class-assignments or coursework, had positive impacts on composite cognitive development and reading comprehension, and, to a more modest extent, on critical thinking Use of e-mail by community college students, however, had a significant inhibiting influence on first-year cognitive growth that was manifest across all four standardized cognitive measures employed in the study Overall, the findings of the investigation suggest that the cognitive impacts of information technology utilization in postsecondary education may be more conditional than general

Clearly the study is limited in a number of ways that should be taken into account when interpreting the findings First, although the overall sample was multi-institutional and comprised a broad range of two- and four-year institutions from 16 states, the inclusion of only 23 institutions means that one cannot necessarily generalize the results to all two- and four-year institutions in the United States

Second, although we attempted in the initial sampling design and subsequent sample weighting to make the sample as representative as possible at each at each participating institution, the time commitments required of each student participant undoubtedly led to some self-selection The responses of the students who participated in the study might have differed from those of the students who were invited to participate but declined, as well as those who dropped out of the institution during the study While our weighting procedure provides at least some adjustment for bias in the samples we actually analyzed by ethnicity, sex, and institution, it cannot adjust for nonresponse bias This may be a particularly relevant caveat for the relatively small two-year college sample

Third, there are some clear limitations in our analytical approach The inclusion in our prediction equations of a measure of the average precollege composite cognitive development of students at each institution violates the independence assumption of multiple regression, and can lead to bias in standard errors (Ethington, 1997) However, we judged that controlling for the academic ability of an institution's student body was sufficiently important from a conceptual standpoint that our prediction model would be inadequately specified in its absence

Fourth, we conducted a large number of significance tests in the study and, thereby, increased the likelihood of making a Type I error (rejecting a true null hypothesis) Some control over this was achieved by interpreting as significant only those cognitive effects of computer or e-mail use where the null hypothesis was rejected in both our unweighted and weighted estimates. Still, given the large sample size and the extensive number of statistical tests conducted, it may make sense to rely on estimated effect sizes, rather than statistical significance, in interpreting the findings. From this perspective a major conclusion of the study is that, even when they were statistically significant, the estimated net cognitive impacts of information technology use were quite modest in magnitude. This can be clearly seen if one considers the standardized regression coefficients (beta weights) in Tables 4 and 5. For example, the statistically significant, positive effects of computer use shown in Table 4 range in magnitude from 0.077 to 0.124, while the significant, negative effects of e-mail use range from –0.118 to –0.157. Thus, net of other influences, a one standard deviation increase in computer use led to cognitive increases of between 0.077 and 0.124 of a standard deviation. Conversely, a one standard deviation increase in e-mail use led to cognitive decrements of between 0.118 and 0.157 of a standard deviation. Significant estimated effects in Table 5 were quite similar in magnitude.

Fifth, while the study employed four different standardized measures designed to assess general intellectual or cognitive development during college (i.e., reading comprehension, mathematics, critical thinking, and a composite measure of all three) these are certainly not the only possible cognitive outcomes that might be influenced by the instructional or noninstructional use of information technology. Use of different cognitive outcomes might have led to different findings. Similarly, our measures of both computer and e-mail use were quite general in nature. More focused and detailed assessments of how these information technologies are used by students in both instructional and out-of-class settings might have yielded a different pattern of findings. Weighed against this limitation, however, is the fact that the general measures of information technology use employed in our investigation did yield fairly consistent positive and negative effects for students in two-year colleges and produced a number of significant conditional effects in both our unweighted and weighted analyses of student samples in four-year institutions.

Finally, given the rapid changes in both hardware and software, as well as the substantial recent increases in information technology use in American postsecondary education, it is distinctly possible that our research (conducted in 1992 and 1993) is actually somewhat dated. This may have shaped our findings in nontrivial ways. For example, since information technology use in classrooms was relatively new in the early 1990s, it may at least partially account for the fact that the two dimensions of effective teaching employed in the study were essentially unrelated to either computer or e-mail use. Moreover, to the extent that technological advances and increased utilization of information technologies have led to more powerful learning experiences and expanded access to information, our study may have underestimated both the nature and magnitude of the cognitive impacts of information technologies in postsecondary education

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John F. Welsh

Course Ownership in a New Technological Context

The Dynamics of Problem Definition

Background

Intellectual property is a hot topic in higher education these days Evidence of the prevalence of the debate on intellectual property is found in a variety of higher education publications, including *The Chronicle of Higher Education* (Guernsey & Young, 1988) and *Academe* These publications describe both the need to revisit intellectual property policies and the conflict it generates between the rights of faculty and the desire of some administrators to control certain forms of intellectual property on behalf of colleges and universities A recent issue of *Academe* describes intellectual property policies as a "ticking time bomb" in higher education (Gorman, 1998, Scott, 1998)

> The ownership of intellectual property is among the most widely debated issues on university campuses today, and these debates go far beyond the distance learning issue itself As the potential value of copyrighted material escalates, particularly with the advent of multimedia software, and as financial resources diminish, many universities are revisiting who owns the intellectual property created by faculty (American Association of University Professors, 1998, p 34)

Another source of evidence of increased attention to intellectual property policies are the number of discipline-based conferences and journals that are devoted to the ownership, control, and compensation issues that arise as (1) technology innovation and transfer become the goals of sponsored research activities and (2) as the electronic mediation of knowledge becomes a vehicle for the delivery of courses and programs (Allen & Boelzner, 1995, Shade, 1995, Spearitt & Julian, 1996)

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The sources and consequences of the reexamination of academic intellectual property are varied and complex. However, the rapid infusion of advanced communications technologies into instructional processes in recent years has clearly prompted a widespread interest in rethinking the meanings, expressions, and rights to intellectual property in higher education. A major point of contention is over who retains ownership or copyright over technology-based course materials created by faculty when these require the use of institutional resources, are commissioned by the institution, or are believed to have considerable market value (Hawkins, 1999, Thompson, 1999). A recent issue of *Cause/Effect* suggests that the basic questions driven by the digital revolution are

> If higher education institutions expand their roles as producers and distributors of information, will they expect more control of faculty-produced material? If so, will they be in direct conflict with faculty who expect to profit from their own intellectual property? With regard to developing course material electronically, what model of ownership should be followed? Should the traditional textbook model be used, or should different models of ownership, such as the patent model, be developed? (Cause Issues Committee, 1997–1998, p. 5)

Or, as Dennis Thompson (1999) argues, perhaps neither form of intellectual property is appropriate for the types of technology-based course materials that are being developed today for delivery through the World Wide Web. Regardless, intellectual property policy is a critical issue in higher education because "most campuses have not defined adequate policies and developed clear understandings about these issues of intellectual property, conflict of interest, and revenue sharing" (Hawkins, 1999, p. 15). The AAUP statement on intellectual property and technology (1998) is correct in suggesting that the issue goes beyond distance education, in part, because many faculty are developing digital documents and interactive experiences for their students that are delivered through the Web to supplement their face-to-face instruction.

There is a broad and rich array of research literature on intellectual property in higher education. In the recent flurry of interest in intellectual property in higher education, much has been written about the application of intellectual property law in higher education (Allen & Boelzner, 1996, Kennedy & Rosenweig, 1998), the impact of technological innovation on intellectual property policies (Cohen, 1994, Gilbert, 1990, Litwak, 1995), access to copyright protected materials through new technologies (Gilbert, 1996, Harney, 1996, Wagner, 1998), the relationship between intellectual property policies and macro-level changes in higher education (Rhoades & Slaughter, 1991a, 1991b, Slaughter & Leslie, 1997, Slaughter & Rhoades, 1990, 1993), and the positions that higher education constituents should take on ownership issues (Gorman, 1998, Kulkarni, 1995, Scott, 1998). There is also a growing body of literature that describes the policy issues specifically pertaining to the ownership of technology-based course materials (Burk, 1997, 1998, Carnevale, 1999, Carnevale & Young, 1999, *Cause* Issues Committee, 1997–1998, Chambers, 1999, Rhoades 1998).

An important subset of the research literature on intellectual property focuses on the impact on faculty as universities are transformed by advanced capitalism. This research has considerable relevance for understanding the social processes that are transforming intellectual property relations in higher education. A portion of this research is concerned with the legal dimensions of the ownership of copyrightable works of University professors (Lape, 1992, Ver Steeg, 1990). This research established two points that are especially relevant for the ownership of copyrightable course materials in the new technological context. First, although universities have long claimed ownership of patentable inventions of faculty members, traditionally, they have not claimed ownership of copyrightable works created by faculty. Even in the early 1990s, "most colleges and universities have no such written [copyright] policy" (Lape, 1992, p. 252). Second, colleges and universities are increasingly adopting copyright policies in order to assert ownership of certain types of faculty products. The major reasons for the institutional assertion of ownership of copyrightable course materials are the "advent of new technology and an increased interest in the commercialization of faculty works" (Lape, 1992, p. 254).

However, much of the recent research on intellectual property in higher education is primarily concerned with the relationships among academia, industry, and the state as research is commercialized in the marketplace. This research focuses primarily, but not exclusively, on *patent* policies and suggests that the state and higher education institutions have acquired greater ownership rights and control over royalties and other revenue generated by the commercialization of faculty scholarship.

The writings of Chew (1992), Olivas (1992), Slaughter and Rhoades (1990, 1993), Slaughter and Leslie (1997) and Rhoades (1998) provide particularly important guides to understanding the social and organizational processes affecting the development of intellectual property policies at American colleges and universities. Chew (1992) articulates a comprehensive overview of the justifications universities use to assert ownership over research and inventions created by faculty, drawn from a survey of the policies of thirty major research universities. Institutional claims to ownership include assertions that intellectual property was created on institutional time, through the use of significant institutional resources, or that research and invention are inherent in faculty responsibilities, at least at research universities Further, Chew argues that institutional policies asserting ownership of research proliferated in recent years because of increasing participation of universities in entrepreneurial activities This trend was prompted and reinforced primarily by governmental incentives to collaborate with industry to develop and commercialize new technologies State governments are particularly aggressive in promoting these partnerships The transformation of their mission, institutions argue, requires changes in the social relations between faculty and their employers Thus, research universities are increasingly concerned with the accumulation of revenues generated through patent licensing (Chew, 1992, p 270–276) Chew also discovers significant legal, societal, and faculty arguments opposing the institutional ownership of research and inventions Chew suggests that policies founded on faculty ownership, but include institutional involvement in the ownership and commercialization of research, are more likely to mitigate institutional conflict and provide generalized benefits to faculty, universities, and society than those that maximize institutional ownership (1992, p 304–314)

In his study of the implementation of legal changes on university campuses, Olivas (1992) also explores the political economic foundations, and legal justifications, for the recent trend of institutional assertion of ownership of faculty research, discoveries and inventions He concurs with Chew that many institutions expect to prosper by increased levels of research support and the royalties associated with licensing commercial applications of faculty discoveries Although he is primarily interested in using intellectual property as a case study of the effect of legal changes on institutions, Olivas argues that the development and implementation of intellectual property policies is a formal means through which institutions control the commercial exploitation of faculty inventions, "usually including patents, trade secrets, and some copyrights that are produced on university time or with university resources" (1992, p 577) Federal law governs much of the assignment, control, and use of intellectual property in higher education However, in public institutions there may be state laws or regulations over and above federal provisions State governments are particularly interested in returns on their investments in faculty research and, thus, promulgate statutes that are conducive to the assertion of institutional ownership Olivas notes that some institutions justify their ownership of faculty research and discoveries on the basis of state statutes, even though more faculty-oriented policies are permitted under law (1992, p 579)

Another strand of this literature emphasizes the changes in the organization of faculty work as higher education adjusts to new political and economic realities This research is central to our understanding of intellectual property relations in higher education today (Campbell, Daza, & Slaughter, 1999, Rhoades & Slaughter, 1991, Slaughter & Leslie, 1997, Slaughter & Rhoades, 1990, 1993) Again focusing on *patent* statutes and policies in higher education, this research is primarily concerned with changes in the conditions of faculty labor as universities organize to commercialize faculty research The primary dynamic driving change in intellectual property relations is the new relationship of the research university to the state and the market In recent years, the *entrepreneurial university* has emerged out of increased interaction and collaboration between corporate, governmental, and academic leaders (Etzkowitz & Leydesdorff, 1997) In concert with the arguments of Chew and Olivas, this strand of research suggests that the conflict within research universities over intellectual property policies is rooted in a new context in which institutional responsiveness and competitiveness are defined in part by collaboration with firms in order to transfer technology to the marketplace Academic managers are increasingly interested in redefining faculty rights to the ownership of their creations—and thus the conditions of their labor—in order to expedite and maximize technology transfer The *entrepreneurial university* seeks to maximize the accumulation of not only sponsored research funding, but also of royalties from the licensing of research discoveries and the political capital that is earned by this interaction with the business community Institutions that fail to acquire at least partial ownership of faculty discoveries find themselves at a competitive disadvantage with those that have (Rahm, 1994, Slaughter & Leslie, 1997, Slaughter & Rhoades, 1993)

One of the most comprehensive and detailed studies of intellectual property relations in contemporary American higher education is Gary Rhoades's *Managed Professionals* (1998) While Rhoades studies various forms of intellectual property and the conditions of professional labor in colleges and universities, this book offers one of the few *empirical* sources in higher education research literature that directly addresses conflicts over the ownership and control of *copyrightable course materials* created by faculty Rhoades devotes an entire chapter of his recent study of collective bargaining agreements to what he terms "the production politics of teaching and technology," noting that the products of faculty labor in the teaching process pose some unique issue of ownership, control and use of intellectual property created by faculty He indicates that,

> faculty generally cannot make money from the curricula they deliver if it is in the form of class notes or collection of readings they require (such matters are governed not by contract but by legal rulings) New technology intro-

> duces a different sort of intellectual property and curricular possibility—software and tapes of faculty lectures and courses Ownership claims are far less clear in these areas (1998, p 202)

Rhoades's study appears to focus on some of the more tangible forms of course materials–software and tapes of faculty lectures His point about the lack of clarity in legitimate ownership is even more critical when applied to the array of course materials that exist only in the netherworld of cyberspace

Rhoades argues that one of the dominant rationales for utilizing new instructional technologies is to increase productivity and to generate more tuition revenue Data from his study suggest that institutional administrators seek more control and discretion in decision making over the use of instructional technologies and the revenue they generate through increased student access to higher education Faculty seek to maintain control of their work and their instructional products They also seek autonomy from institutions and their managerial control However, Rhoades finds little evidence that collective bargaining contracts respond effectively to ownership issues by ensuring individual or collective faculty control over the use of instructional technologies Instead, he discovers that unionized faculty are increasingly "marginalized" in decision making regarding the ownership, control, and use of instructional technology in a vague and uncertain policy environment (1998, pp 205–209) As the scholarship of teaching is increasingly digitized, the marginalization of faculty in the decision-making process is increasingly alarming

The writers in this strand of research on intellectual property argue that there has been an ideological change in higher education from one that defines the public interest as best served by shielding public entities from the dynamics of the market to one that encourages and supports the commercialization of faculty scholarship Claims to ownership and rewards pertaining to intellectual property, including copyrightable course materials, appear to have shifted dramatically from faculty owning their products to ownership and control by institutions that seek to commercialize faculty scholarship Thus, the *conditions* and *outcomes* of faculty labor, including ownership of the products of faculty scholarship, are being rapidly transformed by capital and the state (Slaughter & Rhoades, 1993, p 287)

Although this scholarship on intellectual property focuses primarily, but not exclusively, on *patent* policies that govern ownership, control, and revenue generated by inventions derived from research, it has an important relationship to the intellectual property issues that have captured the recent interest of the higher education policy community, as evident in *Cause/Effect, Academe,* and *The Chronicle of Higher Education* The social and policy processes that occur as course ownership policies are developed and implemented are also important areas of inquiry in the new technological context The same dynamics regarding the changing relationship between the state, capitalism, and academia may be broadly occurring in the United States with respect to policies on the ownership of mediated or technology-based course materials Thus, the *scholarship of teaching* is undergoing transformation as *course ownership* policies are developed and implemented just as the *scholarship of discovery* was transformed by changes in *patent* policies that enabled institutions to assert ownership of faculty research and inventions The significant questions for higher education policymakers, faculty, and administrators include, What is the policy process engendering these changes? What conflicts occur in its course? How are these policy problems being defined? Who has the power and authority to define them?

This article provides a case study of how the Kansas Board of Regents, a consolidated statewide governing board, and the six public universities it governs, initiated and pursued a restructuring of their intellectual property policies that included the initial development of ownership policies for technology-based course materials The primary interest of the study is to examine how the effort to develop and implement course ownership policies was affected by how the "problem" or "policy issue" was defined by the constituents of the policy community that advises the Board, primarily the faculty and academic leadership of the Kansas Regents universities The tumultuous course of the Board's effort at policy development is explained, in part, by the competing definitions of the policy issue propounded by the faculty leaders and academic administrators who advise the Regents

The Sociological Meaning of Problem Definition

"Problem definition" is a sociological concept that suggests that social actors frequently engage in a collective process of defining the social conditions they encounter in everyday life as problems that deserve some form of societal amelioration (Rochefort & Cobb, 1994) Understood sociologically, problem definition is the process of how "social conditions" are transformed into "social or policy problems" through the symbolic interaction of human beings in a social environment Blumer (1971) and his followers (Best, 1989, Ibarra & Kituse, 1993, Miller & Holstein, 1993) argue that problem definition should be understood as a form of collective behavior that shapes (1) what is identified as a social problem or public issue, (2) where and how the problem originates, (3) who is affected by it, and (4) how significant it is Social actors have perceptions, assumptions, ideologies, and interests that favor special and, at times, incompatible and contradictory definitions of the conditions in everyday life Indeed, social actors may even disagree on whether the social conditions constitute a problem The sociological meaning of problem definition acknowledges that social and policy issues have a human and social base, that is, social problems or policy issues are fundamentally defined or socially constructed by human beings in their everyday interactions

Understood sociologically, problem definition is important in the policy process because it determines the status of an issue on the public policy agenda Proponents of a particular policy initiative or intervention must successfully dramatize the significance, scope, and implications of the problem conditions to critical social actors in order to move the issue to the "front burner" of the public policy process Opponents of the initiative may denigrate the significance, incidence, and scope of a problem in order to ensure either a denial that there is a problem or neglect of the problem as a way of resisting its placement on the public agenda (Cobb & Ross, 1997)

The problem definition process also shapes the range of acceptable and viable alternatives to the problem conditions, as well as the design of specific solutions or interventions aimed at responding to them Proponents of an initiative generally seek to align the design of a policy or a program with their conception of an optimal response to the problem circumstances Opponents of the intervention will struggle over the design of a program or policy implementation in order to dilute, minimize, or redirect its impact Social conflict over the significance of a social problem or policy issue and the design of alternatives to it suggests that the problem definition process is neither linear nor deterministic The relative strength, abilities, and resources available to proponents and opponents shape whether the conditions are socially defined as a problem as well as whether a societal intervention is developed to rectify them Solutions or proposals to address problems are themselves frequently seen as problems by their opponents Furthermore, the implementation of initiatives conceived as solutions tend to generate new conditions that may be interpreted as problems by opponents or by those who believe that their interests are negatively affected by the changed state of affairs (Cobb & Ross, 1997, Petracca, 1992, Rochefort & Cobb, 1994, Stone, 1988, Weiss, J , 1989)

When the problem-definition process is viewed as symbolic interaction that is designed to promote or deny social agendas, six critical dimensions emerge (Rochefort & Cobb, 1994, p 14–21) These concepts provide a basis for operationalizing the study of problem definition in the policy process

1. *Causality.* The way a policy problem is defined generally includes statements about its origins. A statement about the cause of a policy problem is a strategic choice that shapes the course, content and outcomes of a policy debate.
2. *Significance.* The significance of any social problem is not self-evident but emerges out of the struggle of groups to define reality. Problems that are identified as the most significant are likely to move upward on the public policy agenda. Perceptions of lesser severity tend to move problems downward on the list of policy priorities.
3. *Incidence.* Perceptions and information that demonstrates increasing frequency of a problem creates pressure for decisive policy intervention.
4. *Novelty.* Novel policy problems attract considerable public attention because they are out of the ordinary, but they also lack familiar policy tools to deal with them.
5. *Scope.* The scope of an issue refers to the range of actors whose interests are directly affected by the problem. Proponents of an initiative may seek to expand their political base by establishing claims of relevancy to designated constituents. That is, they may seek to elevate their definition of the problem through arguments of a broad social impact.
6. *Ownership.* Policy issues generally include a struggle over who has authority to delineate the causes, consequences, and solutions to social problems. A variety of groups may seek rights to participate in the definition and resolution of a policy issue. Ownership of an issue determines who sits on the sidelines and who participates as a policy issue progresses.

Although several theoretical perspectives in the social and policy sciences, including Neo-Marxism or variants of political economic analysis (Slaughter & Leslie, 1997) and postmodernism (Rosenau, 1992), help make sense of the elevation and interpretation of issues and problems in the public policy process, the specific study of the role of problem definition in the policy process is moored in the social constructivist tradition. Social constructivism promotes the notion that individuals, groups, and societies construct the definitions, explanations and interpretations that help structure human experience (Berger & Luckmann, 1967, Blumer, 1971, Edelman, 1964, 1988, Miller & Holstein, 1993,) These constructions, or definitions of the situation, also help us decide how we respond to our experiences. Social constructions do not necessarily conform to any absolute, objective, or "out there" reality. They are based on symbols, language, assumptions, and value judgments that are arbitrary, vague, and indeterminate People create a *sense* of purpose, order, objectivity, and social relations through symbolic interaction The social constructivist perspective draws a distinction between *objective conditions* and the definition of these conditions as *problems* or *issues* Conditions become problems when individuals or groups successfully label them as such The process through which conditions are transformed into problems is dependent upon the efforts of moral or political entrepreneurs who must successfully dramatize the conditions as a problem and champion a policy intervention to address it (Becker, 1963)

From a constructivist perspective, intellectual property, including claims to the ownership of technology-based course materials, is a social construction or definition of the situation that is negotiated among actors within a social, political, and legal environment Like all forms of property, legitimate course ownership is an organization of ideas that becomes an intersubjective and material reality because people act on the basis of their beliefs about it. Any creation or reassessment of course ownership policies in higher education might be viewed as a redefinition or restructuring of the meaning, expressions, and distribution of intellectual property in order to respond to conditions that moral or political entrepreneurs see as problematic for higher education Anxiety over the technological and organizational changes occurring in higher education may generate efforts to seek a new consensus, or a new definition of the situation, regarding the ownership and control of intellectual property Although the social constructivist position has been criticized for insufficient attention to the impact of disparities in institutional power in the definition process, its primary contribution is the focus it brings to the definitional nature of the policy formation process The social constructivist viewpoint prompts us to inquire about how the participants define the problem, but it does not preclude an understanding of how differential resources, power, and authority affect the definition process

Policy Formation in Kansas Higher Education

Established in the state's *Constitution*, the Kansas Board of Regents is comprised of nine lay members who are appointed by the governor, subject to confirmation by the state senate The Kansas *Constitution* and statutes ensure that the Board has a broad geographic representation and a relative balance of representation from the two predominant political parties Although the Board is constitutionally part of the executive branch of Kansas state government, in recent years it has maintained a strong independent and nonpartisan stance, a strength identified by many of its constituents (Gade, 1993)

The Board's primary responsibilities are established in the Kansas *Constitution* and statutes. These include (1) hiring and compensating the chief executive officers of the universities, (2) establishing tuition and fees, (3) approving campus budgets and legislative requests, (4) approving and reviewing academic programs, and (5) setting academic, fiscal, and personnel policy for the six universities. Despite the broad authority conferred by the state's legal structure, the Regents historically have attempted to fulfill their responsibilities in a manner that is consistent with the decentralist political culture of the state's higher education system (Gade, 1993). However, the Board has also adopted a more activistic posture in its relationship with the academic processes at the universities. While retaining its governing authority over the six state universities, on July 1, 1999, the Board assumed coordinating authority for Washburn University, the public community colleges, and the public postsecondary technical schools, a change that occurred subsequent to the events described in this study.

The Board's executive director leads a small office staff for the Board. The university presidents report to the Board, not the Executive Director, a fact that yields considerable autonomy for the universities and reinforces the decentralist tradition within the state. However, campus autonomy within the university system is mitigated by the Board's view of how it can best fulfill its responsibilities. The Board is faced with a persistent problem of balancing its responsibility for governance and stewardship with the temptation to micromanage the campuses. The Board's mission statement suggests the need to avoid micromanagement by drawing a sharp distinction between its responsibility to focus on *policy making* and holding the chief executive officers responsible for the *management* of the institutions, including the implementation of the policy decisions developed by the Board. The Board's staff is largely responsible for providing analysis of policy issues, ensuring institutional accountability to the Board, and facilitating communication among the six universities.[1]

The tradition of campus autonomy in the state described by (Gade, 1993) has been modified in recent years by the Board's more activistic agenda and its efforts to address issues as a collectivity or system of institutions. Coordination and communication on issues that affect all six of the universities occur through a system of councils that advise the Board and its staff. The council system is established in the Board's *Policy and Procedures Manual* (Kansas Board of Regents, 1998a). The councils are expected to facilitate negotiations among the universities and provide advice to the Board and its staff on various collective issues. Officers of the Board meet with and serve as the Board's liaisons with the major councils For instance, the executive director meets with the Council of Presidents and the director of academic affairs meets with the Council of Chief Academic Officers System officers are responsible for scheduling council meetings, developing agendas in consultation with the council chairs, and writing and distributing the minutes of council meetings System officers also serve as agents of the Board in questioning the campus administrators for information and informed recommendations

In addition to the Council of Chief Academic Officers (COCAO), the Council of Faculty Senate Presidents (COFSP) and the Students' Advisory Committee (SAC) advise the Board on academic matters These councils are invited by the Board to address issues that concern their constituents at each Board meeting They also represent their constituents on systemwide committees and task forces However, the Council of Chief Academic Officers has considerably more visibility and impact on the system's policy formation process for three reasons (1) its members are more permanent in that, unlike faculty and student leadership, they do not turn over each year, (2) its members are employed by the universities to work with policy and administrative issues on a full-time basis and receive considerable institutional support in order to fulfill these responsibilities, and (3) its members receive direct staff support from the Board and its office, unlike the faculty and student leadership

COCAO's continuity, support, and technical expertise on higher education issues give it a competitive advantage over the other academic councils in the policy process, including the ability to define policy issues that require attention by the Board Further, the systemwide representation of Regents faculty to the Board has been weak historically The Council of Faculty Senate Presidents has a particularly difficult time getting items placed on the Board's policy agenda It is largely reactive to the initiatives established by other councils Only one of the universities has a unionized faculty Further, Kansas law stipulates narrowly the scope of items that the Regents must negotiate with faculty collective bargaining units Despite its perceived weaknesses, COFSP is the official and primary conduit between the Board and the faculty of the Regents universities

COCAO's activism on policy issues is viewed as a strength by the Board and its staff However, the reactive posture of COFSP is viewed as a problem, because the Board and its staff believe that the advice received from faculty governance is not optimal The Board and its staff also believe that communication with the faculty as a whole is weakened because of COFSP's reactive approach to its responsibilities Both

COCAO's activism and COFSP's reactive posture had considerable relevance for the definition of course ownership as a policy issue for the Kansas Regents Universities

Breaking from its traditional approach to governance, the Board adopted a vigorous reform and accountability agenda in the 1990s, relying on the councils for commentary and assistance in the development of various initiatives that were intended to improve the accountability, resource management, and responsiveness of the universities Among its various stewardship efforts, the Board developed and implemented a strategic reform process in 1995 called "VISION 2020," which included a series of policies on faculty evaluation and development that required merit-based annual pay increases, the use of student ratings instruments in all faculty evaluations for salary supplements, tenure, and promotion, and the revision of tenure policies to allow for the dismissal of low performing faculty The Board also adopted a program review process that promoted significant changes in the financing and academic life of the universities, including the elimination of degree programs and redirecting resources to programs that the Board and the campus leadership believed to be of the highest priorities

A second feature of the context of the Board's development of course ownership policies was an anxiety shared by both faculty and academic administrators over distance education and the increasing role of advanced technology in research and instruction Prior to and during the policy dialogue on intellectual property, the Board pursued an initiative that infused new resources for technology with the intent of increasing the number and breadth of distance education courses and programs offered by the universities The Board's initiative in distance education was largely designed to serve the rural and western parts of the State, which had been viewed by the Board and Kansas legislature as grossly underserved by the universities The Board's efforts to increase the activity of the Regents universities in distance education included a streamlining of policies for the approval of distance education courses and programs, a change that some faculty leaders criticized for denuding the approval process of the enforcement of quality standards in distance education

Third, In the mid-1990s, the Board of Regents integrated an economic development theme into its mission statement, the mission statements of the universities, and the system's strategic plan The Regents economic development strategy included the development and financing of Centers of Excellence, a distinguished professors' program that was intended to build academic-industrial linkages, and the creation of organizational infrastructure for technology transfer at each of the Regents universities

The Board also developed an information system to measure the economic impact of the universities as an accountability device The Board's economic development performance measures, which were reported to the governor and legislature, included all revenues generated from the sale and licensing of technology commercialized by the universities

The emergence of course ownership as a policy issue Figure 1 presents a schematic that summarizes the dynamics of problem definition in the formation of course ownership policies by the Kansas Board of Regents [2] The schematic suggests that the problem-definition process in this case is comprised of four phases The phases are presented in chronological order However, movement from one phase to another cannot be predicted with certainty Further, although the phases are presented as discrete events, considerable overlap among them is likely Each phase indicates an impending change in the policy environment and a signal that new issues and struggles to define the situation are emerging [3]

The Board's effort to develop detailed policies on course ownership was initiated by the Council of Chief Academic Officers Prior to the Board's interest in intellectual property in the 1990s, the Board had a patent policy that initially applied only to the state's research universities The Board did not have any policy regarding the ownership and control of copyright-protected materials

In October 1995, members of COCAO clearly believed that a system policy covering all forms of intellectual property was needed to address several circumstances The primary issue for COCAO was that the Board lacked a policy on copyright and, thus, did not enable the universities to address administrative and resource allocation problems that were emerging with the increased use of technology in teaching, addressing the *causality* and *novelty* dimensions of problem definition

According to one member of COCAO, "COCAO's interest in a broader Regents policy on intellectual property was prompted by two factors copyright of software packages and ownership of distance education and mediated instruction" (cited in Bumstead, 1998) Another member of the Council said, "We have a situation now where a faculty member contracted with a publisher to develop a CD-ROM to accompany a textbook We are paying for it but can't negotiate any rights for the University because the Board's policy doesn't address these situations" (Welsh, 1998)

Drawing a parallel with cost inflation in journal subscriptions, another member of COCAO commented directly to the Board, "You will see [that] our concern expressed here [is] for Electronic Mediated Instructional Products We have the potential for a repeat of journal infla-

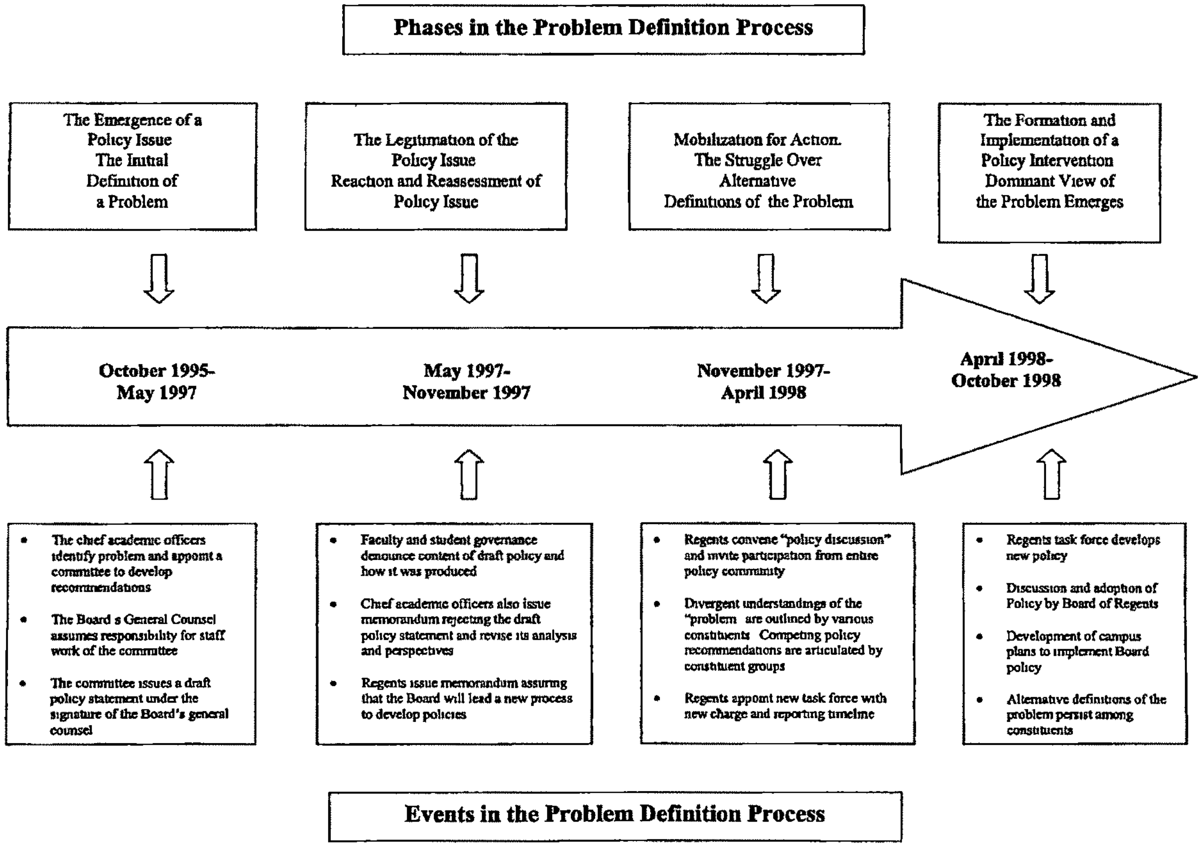
Phases in the Problem Definition Process
The Emergence of a Policy Issue The Initial Definition of a Problem
The Legitimation of the Policy Issue Reaction and Reassessment of Policy Issue
Mobilization for Action. The Struggle Over Alternative Definitions of the Problem
The Formation and Implementation of a Policy Intervention Dominant View of the Problem Emerges
October 1995-May 1997
May 1997-November 1997
November 1997-April 1998
April 1998-October 1998
• The chief academic officers identify problem and appoint a committee to develop recommendations
• The Board s General Counsel assumes responsibility for staff work of the committee
• The committee issues a draft policy statement under the signature of the Board's general counsel
• Faculty and student governance denounce content of draft policy and how it was produced
• Chief academic officers also issue memorandum rejecting the draft policy statement and revise its analysis and perspectives
• Regents issue memorandum assuring that the Board will lead a new process to develop policies
• Regents convene "policy discussion" and invite participation from entire policy community
• Divergent understandings of the "problem are outlined by various constituents Competing policy recommendations are articulated by constituent groups
• Regents appoint new task force with new charge and reporting timeline
• Regents task force develops new policy
• Discussion and adoption of Policy by Board of Regents
• Development of campus plans to implement Board policy
• Alternative definitions of the problem persist among constituents
Events in the Problem Definition Process

FIG 1 The Dynamics of Problem Definition Course Ownership Policies

tion in the most critical area for the University, teaching" (Council of Chief Academic Officers, 1998, p 3) COCAO's initial political entrepreneurship, which was an expression of the need to develop detailed policies on the ownership of technology-based course materials, was not challenged by the Board of Regents or by the faculty and student leadership

In the initial phase of the problem-definition process, COCAO identified three conditions that its members believed were potentially harmful to the universities and thereby established the *significance* of the policy problem First, the lack of a copyright policy would not enable the universities to negotiate effectively for a share of royalties in the event that a "blockbuster" software package was created by their faculties Second, the lack of a copyright policy inhibited the ability of the universities to develop mediated or distance learning course materials, because it was not clear who owned and controlled the courseware The chief academic officers were concerned that investment in mediated course materials might not be prudent if the universities could not control what happened to the course materials they funded

> Clearly decision makers at universities must behave much like their counterparts in the private sector in making investments We don't have enough money to do everything, so we must pick and choose among alternative investments If we are able to derive a continuing flow from one investment and not from another, we will more favorably consider that investment Put simply, unless there are guarantees of continuing flows to the institutions from investments, we are unlikely to invest in those areas (Council of Chief Academic Officers, 1998)

Third, the chief academic officers argued that the lack of a copyright policy on mediated courseware also generates conflict of interest and time commitment problems In the absence of clear policies on the ownership of mediated courseware, the chief academic officers were concerned that faculty might have the right to sell course materials to competitor institutions and thus established that the *scope* and *incidence* of the problem might extend to the relationships of many faculty with their institutions "Just as we do not normally permit a full-time faculty member to teach at another institution, we should not allow faculty or staff members to teach electronically for another institution if doing so would prove to be a detriment to the Regents institution that employs them" (Council of Chief Academic Officers, 1998, p 3)

In October 1995, COCAO established a committee to draft a policy for the Regents universities, asserting an important role of COCAO in the *ownership* of the policy problem The committee was asked to report back to COCAO by June 1996. COCAO's systemwide committee included chief academic officers, attorneys, librarians, campus technology managers, and faculty members The committee did not include any student leaders Minutes of the committee's meetings reveal that only one of the faculty members ever attended any of the committee's meetings The systemwide committee was, in fact, operated almost entirely by the academic administrators Eventually, the Board's General Counsel assumed leadership for the group The systemwide committee missed its first deadline but issued a draft policy statement in May 1997 under the signature of the Board's General Counsel In essence, the draft policy statement issued by COCAO's committee was not restricted to ownership of mediated course materials but covered all forms of intellectual property The draft policy statement allowed the universities to assert ownership of all intellectual property created by employees of the Kansas Regents system, including course ownership materials created through faculty scholarship

Through the draft policy statement, COCAO articulated a comprehensive definition of an emerging policy problem The chief academic officers articulated the *causes, significance, incidence, novelty, scope,* and *ownership* of the emerging policy problem By preparing a draft policy statement for inclusion into the Board's *Policy and Procedures Manual,* COCAO also asserted a prominent role for itself in resolving the policy problem it identified

The legitimation of the policy issue Although COCAO's initial political entrepreneurship in defining course ownership as a policy issue went unchallenged, the negative reaction from faculty and student leaders to the recommendations in the draft statement from COCAO's systemwide committee was swift and forceful Student and faculty governance groups in the system uniformly denounced the content of the draft statement and the process through which it was developed The basic criticism offered by the faculty leadership was that the universities could assert ownership over copyrightable works, including research manuscripts and course materials, without identifying when such an assertion was necessary and prudent (Council of Faculty Senate Presidents, 1998, Welsh, 1998)

Because the draft policy was distributed by the Board's General Counsel, the Regents themselves received considerable criticism from the students and faculty leaders The Board members were surprised by the criticism they received from faculty and students, because the Regents had very little, if any, knowledge of or involvement in the development of the original draft statement However, the reaction from the student and faculty constituents succeeded in drawing considerable media attention to the conflict over the draft statement on intellectual property

The conflict was covered by newspapers in each city where a Regents university or one of its branch campuses was located Several newspapers in the state printed at least one editorial that criticized the draft policy and the Board for considering it The content of the news articles and editorials uniformly presented the conflict as a struggle pitting faculty ownership, creativity, and productivity against the Board's presumed interest in increasing revenues through the commercialization of faculty products

> It appears [that] dollar signs have gotten in the way of the Regents' vision The universities profit far more from the recognition brought by the fame and successes of their professors than from royalties Consider the prestige of having a well-known author, researcher, composer or artist on faculty But if professors aren't allowed to profit from their off-campus endeavors, where is the incentive to produce? The universities hired the professors because of their special talents and abilities That is something they brought to the university, not something the university gave to them Why, then, should the university cash in when they use those talents on their own? (*Topeka Capital-Journal,* 1997)

Another editorial commented, "Many of the best teachers in the Kansas university system are the ones who constantly explore the intricacies of their disciplines–outside of the classrooms, labs and university offices The Regents should not take ownership of that vital and individual exploration" (*Wichita Eagle,* 1971)

Commentary and publicity by the media supported the resistance by COFSP to the initial definition of the problem COFSP was particularly concerned about COCAO's apparent assertion of initial *ownership* of the problem and the restricted view of the *causes* and *significance* of the problem For COFSP, the problem entailed issues that had a bearing on academic freedom and faculty autonomy The reaction to the draft statement prompted a reassessment by COCAO of its strategy to promote ownership of course materials as a legitimate policy issue COCAO subsequently issued a memorandum through its chair rejecting the draft statement issued by the systemwide committee it created COCAO also urged in its response that the Board of Regents assume leadership for the initiative (Council of Chief Academic Officers, 1997)

The Regents also distanced themselves from the draft policy but clarified that the university system needed to create intellectual property policies that would address the circumstances articulated by the chief academic officers The Board accepted this invitation and attempted to assure the faculty, students, and campus administrators that a system policy would be developed through an open and participatory process Using a memorandum addressed to the system's councils as a vehicle to assert its ownership of the problem, the Board officially placed intellectual property on its policy agenda and conveyed to each of its constituent groups that further dialogue on the policy issue would occur under its purview (Docking, 1997).

The struggle over alternative definitions of the problem. Blumer (1971, p. 303) suggests that an important phase of the problem-definition process is the struggle among groups over alternative definitions of the problem. The mechanism the Kansas Board of Regents used to air the competing definitions of the problem was a formal policy discussion on the topic at the Board's January 1998 meeting. The Board used policy discussions on other occasions to increase its knowledge of particular issues and to allow constituent groups to present their research and state their recommendations on the direction the policy development should take. The Regents also believed that a policy discussion on intellectual property was needed in order to clear the air of the conflict and antagonism that arose over the draft statement issued by COCAO's committee. In preparation for the policy discussion, the Board received and distributed written and verbal commentary from the chief academic officers, faculty senate presidents, and student government presidents, as well as background information on the topic from its Director of Academic Affairs and General Counsel (Kansas Board of Regents, 1998b).

Table 1 summarizes the positions of COFSP and COCAO on the six dimensions of problem definition as they were presented to the Board in January 1998.[4] The most contentious issues that emerged from the policy discussion were the differences between faculty and academic administrators pertaining to the ownership and control of the various forms of copyrightable materials created by faculty as well as the distribution of royalties or other compensation resulting from the commercialization of technology-based course materials.[5]

The written and verbal testimony presented by the academic administrators and faculty leadership to the Regents revealed several significant differences in how the policy issue was defined, which shaped differences on how it should be solved. The chief academic officers were primarily concerned that the high-tech research, teaching, and learning environment of the universities prompted a need for the development of comprehensive intellectual property policies that would protect the universities and support resource allocation decisions that favored investments in technology-based course delivery.

> Substantial use of resources. To COCAO this is a very important element of any policy. It solves the problem of defining what claim to make to products produced on one's free time as opposed to the claim made when one produces a product on university time. Given the professional nature of most of

TABLE 1

Ownership of Course Materials Perspectives on the Dimensions of Problem Definition

Dimensions of Problem Definition	Stakeholders in the Kansas Regents Policy Community	
	Council of Chief Academic Officers	Council of Faculty Senate Presidents
1 Causality	The lack of a system copyright policy to address commercialization of software, ownership of mediated courses, and conflict of interest was interpreted as potentially harmful to the institutions The universities could not effectively manage resources without a copyright policy that addressed ownership of course materials	Initially, the policy issue for COFSP was the protection of ownership of scholarly works and academic freedom in response to the policy activism of the chief academic officers In the latter phases of the dialogue, COFSP agreed that the course ownership issues emerged with the development of mediated materials, courses and programs
2 Significance	COCAO believed that the issue should be pushed to the forefront of policy development for the system They argued that the lack of a copyright policy has significant implications for use of institutional resources and the ability of the universities to achieve the goals established by the Board, particularly in distance education, economic development, and resource management	The protection of academic freedom and faculty ownership and control was seen as paramount COFSP agreed that the university system needed to develop quality standards and policies for distance learning, but this was less significant than protecting academic freedom
3 Incidence	COCAO argued that the lack of a course ownership policy posed occasional problems at the present, but has great potential to become a frequent, troublesome occurrence	Any threat to faculty ownership and control of scholarly works was seen as a threat to the core tenets of higher education Ownership and control issues relating to distance education courseware were seen by COFSP as increasingly problematic and frequent
4 Novelty	COCAO saw course ownership as a novel policy problem because the Board and university system had not dealt with this issue previously The novelty of the issue was also due to technological innovations in course and program delivery	Threats to faculty ownership and control of course materials through a Board policy was viewed as novel in Kansas COFSP viewed the policy issue posed by technology-based teaching and learning as novel
5 Scope	COCAO believed that the problem has a broad scope, potentially impacting all universities in a variety of operations	Faculty argued that the issues associated with ownership and control of faculty work products have a broad and fundamental impact on higher education
6 Ownership	COCAO argued that resolution of the problem certainly involves faculty and academic leadership After the initial proposal was challenged, they argued that the ultimate authority to resolve these policy issues was the Board of Regents The Regents needed to assert ownership of the problem and take the lead in resolving it	COFSP argued that the issue has implications for curriculum, instruction, and academic freedom COFSP viewed the initial actions by COCAO as unnecessarily intrusive COFSP sought a partnership with the Regents to mitigate the threat to academic freedom and to counter the political entrepreneurship of COCAO

> our jobs, we doubt that it would be possible to even define "university time" and "own time" Instead, we propose that substantial use of university resources is the key to determining university right to the product (Council of Chief Academic Officers, 1998, p 3)

The chief academic officers also recommended that a return on investments should be a basic principle for the proposed policy on the ownership of course materials

> The policy should guarantee the Regents universities a return on investments they make For example, if a person is hired by the university to write a piece of software to enroll students, then that product belongs to the university and, if sold or licensed, the proceeds should accrue to the university Similarly, if the University purchases equipment used to create a product of value, the University should have claim to a portion of that product's value (Council of Chief Academic Officers, 1998, p 1)

COFSP was primarily concerned that the assertion of institutional ownership of course materials would infringe upon academic freedom and threaten the autonomy faculty traditionally enjoyed in the fulfillment of their responsibilities in teaching and research Paramount in its statement to the Board was the concern that academic freedom of thought and expression might be unduly curtailed if the universities could assert ownership of any course materials One faculty leader commented, "It seems ironic that the [Board] should decide in the wake of the discrediting of Marxism, Communism, *1984*, and *Animal Farm*, and at a time when governments all over the world are divesting themselves of state-owned enterprises by privatization, that the Kansas Board of Regents should arrogate unto themselves the role of Big Brother" (Higham, 1997, p 1)

The Faculty Senate at one Regents university adopted a resolution on the Board's discussion that stated that the proposed policy

> will discourage research and experimentation by faculty and students [It] threatens the viability of on-going research projects This proposal would provide a vehicle for potential censorship of artistic and intellectual endeavors The Faculty Senate deplore[s] both the details and the general tenor of the draft Board of Regents policy on intellectual property as discouraging research, artistic creativity and publication The Faculty Senate express[es] its shock and displeasure at the Board's apparent attempt to assert unreasonable ownership rights over all manner of intellectual property produced by faculty (Resolution of Pittsburg State University Faculty Senate, 1997)

Any threat to faculty ownership and control of scholarly works was seen by the Council of Faculty Senate Presidents as a significant threat to the core tenets of higher education in the United States The Council of Faculty Senate Presidents stated,

> We believe that control over traditional scholarship should follow the custom of residing primarily with the creator(s). Following this norm reinforces the principle of academic freedom and ensures that the university environment efficiently supports and nurtures the active creation and dissemination of ideas, works of art, compositions, and research. From our perspective, the marketplace of ideas works best when there are fewer regulations on the production and dissemination of these ideas. (1998)

One faculty leader commented,

> The only intellectual property which the institution may own, under law, is that created under a "work for hire" agreement. If such is imposed in a draconian manner, creativity will dry up and the speed of production of new knowledge, surely one of the basic purposes of a University, will slow to a crawl observable in the Federal government where historical volumes take as long as 25 years to appear. (Higham, 1997)

COFSP argued that the draft policy issued by COCAO's committee was unnecessarily intrusive into the terrain that faculty historically controlled. COFSP expressed orally and in written form differences with the chief academic officers on all six dimensions of problem definition, as summarized in Table 1. COFSP agreed with COCAO that the infusion of new instructional technologies created new policy problems but differed from COCAO on several dimensions of the definition of the problem. COFSP also agreed that the policy problem was *novel*, *significant*, and would occur with increasing *incidence*. They argued that COCAO underestimated the *scope* of the policy problem, because as more faculty created and used technology in their face-to-face instruction, the policy would need to be applied very broadly, not just to distance education courses. COFSP's most significant differences with COCAO pertained to the *cause* and *ownership* of the policy problem. COFSP criticized the initial definition of the problem by asserting that COCAO did not fully articulate the implications of its position on intellectual property for the work conditions of faculty, particularly as these pertained to their academic freedom and autonomy. COFSP interpreted the recommendations of COCAO's committee as problematic for faculty, because all products of faculty work, including course materials, would be owned by the universities. From COFSP's perspective, an acceptable definition of the policy problem should include consideration of the impact of any policy intervention on faculty work conditions. COFSP also rejected COCAO's assertion of ownership of the problem. COFSP understood intellectual property policies as fundamentally academic matters that required full faculty participation. Further, COFSP argued that the Board's *Policy and Procedures Manual* was a social contract that entitled it to participate in the development of the Board's policies for the universities.

Approval and implementation of a policy statement At the conclusion of the formal discussion, the Board voted to appoint its own Task Force to recommend policies for the Kansas Regents system The Regents Task Force was co-chaired by two Board members and included representation from the faculty, students, chief academic officers, and a university technology manager The Task Force was advised and assisted by the Board's General Counsel and Academic Director The Regents Task Force was specifically asked to develop a comprehensive system policy by first seeking points of concurrence in the perspectives of the faculty and the academic administrators and then reconciling differences The Board's instructions to the Task Force assured that COCAO's interest in a course ownership policy would be addressed at the Regents level The Regents Task Force presented its initial recommendations to the Board and councils in April 1998 as a nonaction item (Kansas Board of Regents, 1998)

The Regents Task Force also rejected the draft policy statement issued by the COCAO committee The recommendations of the Regents Task Force differentiated types of copyrightable products and the circumstances in which they were developed The Task Force believed that this approach enabled it to address the concerns of the chief academic officers and the faculty leadership by identifying both differences and consensus on specific policy questions The main differences among the stakeholders concerned ownership of copyrightable software and technology-based course materials

The Task Force recommended three provisions to address the issues raised by COCAO and COFSP

1 Institutional ownership of mediated courseware should be asserted only in those cases in which the university directed its development by explicitly assigning or hiring faculty to develop course materials

2 Copyrightable software that is not part of a mediated course should be treated according to the provisions of the Board's pre-existing patent policy

3 In all other cases pertaining to copyrightable materials, faculty should retain ownership and control of the intellectual property they created

The Task Force argued that these recommendations enabled the chief academic officers to plan for the development of distance education courses and programs but would not otherwise threaten faculty ownership of the materials they created in the course of their teaching and scholarship The Board invited campus commentary on the recommendations of its Task Force prior to formal action

In November 1998, the Board reached a consensus on a systemwide intellectual property policy, including statements on the ownership of technology-based course materials, by adopting the recommendations of its task force The Board voted unanimously in favor of the recommendations and was supported by the Council of Presidents, COCAO, COFSP, and the Students' Advisory Committee The policy statement was inserted into the Board's *Policy and Procedures Manual* The Board then instructed the universities to modify campus governance documents to implement the policies The decision can be viewed as a fairly decisive victory for the chief academic officers and their definition of the policy problem since their interest in asserting institutional ownership over some software and technology-based course materials created by faculty was approved by the system's policy making-body Insufficient time has passed to determine whether implementation of the Board's policies will generate resistance to the implementation of the policy and/or new definitions of the problem However, early indications are that the alternative definitions of the problem promulgated by both the chief academic officers and faculty leadership have re-emerged, with COFSP expressing concern that their autonomy and academic freedom were compromised, because the new policy gives the universities, *for the first time in their history*, authority to assert ownership over course materials created by faculty (Welsh, 1998)

Sources of the Conflict Over Course Ownership

Bosso (1994, p 183) argues that a full understanding of the problem definition of any issue requires an appreciation of the social context in which it occurs Based upon data generated from Regents, faculty, and academic administrators, the course of the debate and the development of specific policies on intellectual property by the Kansas Board of Regents appears to have been affected by three dynamics (1) the implementation of an accountability and reform agenda by the Board of Regents, (2) pressure from the Board and state legislature to increase access to the universities through distance education, and (3) the acquisition of a role for the Board and universities in economic development

The Board's efforts at accountability and reform were viewed by many faculty as one-sided, intrusive, and lacking a quid pro quo The Board expected the universities and the faculty, in particular, to reinforce their efforts to maximize their effectiveness by redirecting resources to new priorities, but from the perspective of COFSP, this was not matched by equally rigorous efforts to improve the financing of the universities, including faculty compensation. COFSP voiced considerable suspicion toward the Board and the academic administrators because of a perceived imbalance of the *accountability* and *advocacy* responsibilities of the system's leadership. The effort to create course ownership policies designed to protect institutional investments, possibly at the expense of faculty autonomy and academic freedom, was interpreted by the COFSP as an example of the Board taking from the faculty but not supporting faculty in return (Welsh, 1998).

Initially, COCAO championed the creation of course ownership policies to support the redirection of resources to meet the Board's expectations for distance education. The chief academic officers believed that the universities needed to become more aggressive in the delivery of distance education courses and programs, or else they would lose that segment of the academic market to providers such as the University of Phoenix and the Western Governors' University. COCAO consistently argued against a major investment of institutional resources into mediated course materials without policies that were intended to protect institutional investments. For the chief academic officers, a policy on course ownership was a necessary tool to help achieve the Board's goals in distance education and to optimize institutional resource management. COFSP viewed the initiative in distance education as a potential threat to their control over the curriculum and its delivery, particularly if it meant they had to relinquish rights to the scholarship and course materials they created (Welsh, 1998).

Finally, faculty leaders also expressed concern over what they viewed as the "overcommercialization" of the universities, or the inappropriate imposition of the logic of the marketplace into the academic policy environment (Blumberg, 1996; Weiss, B. D., 1992). COFSP expressed concern that the fundamental purposes of the universities were being transformed by the emphasis on technology transfer and commercialization of faculty scholarship (Kulkarni, 1995). Although the system's existing policy on patents seemed reasonable to COFSP, it objected to the extension of the same line of thinking to copyrightable materials out of a concern that the universities were becoming profit-making organizations and thus subordinating the values of the academy to the values of the market. The interest that the Board and the academic administrators demonstrated in recouping institutional investments, or profiting from the sale or licensing of software and course materials developed and commercialized by faculty, was viewed by COFSP as inappropriately elevating the economic development initiative above the educational mission of the universities. COCAO's emphasis on a "return on investment" strategy toward course ownership was particularly repugnant to some faculty leaders COFSP interpreted its initial resistance to the proposed intellectual property policies as a reasoned and principled opposition to the intrusion of the logic of the marketplace into the everyday realities of scholarship, teaching, and learning in an environment that has become increasingly dependent upon technology (Welsh, 1998)

COCAO argued that technological changes in higher education demand new values and ways of thinking about the relationship between faculty work and the goals of the institution In the case of mediated instructional materials, the chief academic officers believed that the redefinition of the ownership and control of academic intellectual property and, thus, the structure of faculty work were essential to meeting the goal of expanding access to distance education courses and programs COFSP rejected this definition of the issue and argued that the historical values of the academy, such as quality, autonomy, and academic freedom, should not be subordinated to the more ephemeral goals that appeared in the mission statements and strategic plans of the Board and universities (Bowie, 1993, Welsh, 1998)

The promotion of a "high tech" concept of teaching and scholarship, coupled with an accountability and economic development agenda, constituted the environment in which the Kansas Regents system pursued its dialogue on course ownership If Etzkowitz and Leydesdorff (1997), Slaughter and Rhoades (1990, 1993), Slaughter and Leslie (1997), and Rhoades (1998) are correct in their observation that we are witnessing the emergence of new relationships among academia, industry, and the state, the Kansas transformation of the ownership and control of technology-based course materials may foreshadow other transformations of copyright or course ownership policies in higher education The transformation of intellectual property policies that pertain to the ownership of technology-based course materials in Kansas public higher education certainly parallels the state's treatment of faculty research In this particular case, the state higher education board organized the policy-making process to enable the universities to assert ownership and control of technology-based teaching materials in order to pursue distance education opportunities and to support their resource management In doing so, the Board responded to an uncertain policy environment that was created by the expansion of new technologies in teaching and learning, but this policy formation also changed the relationship of faculty to their universities and to the products of their teaching scholarship

A study of the definitional nature of changes in copyright and course ownership policies has the potential to contribute to the research literature on intellectual property in higher education for three reasons First, the study may help to explain how the policy issues surrounding novel or emerging intellectual property issues, such as the ownership of technology-based course materials, are socially constructed in higher education in the United States Second, the problem-definition perspective provides a compass to navigate the policy process as other Boards, systems, and institutions consider, create, or revise policies on course ownership This study should be located in a very specialized niche in the research literature on intellectual property in higher education a niche containing those studies that specifically pertain to the impact of the definition of the policy problem on the policy process Third, the study may help understand some aspects of the relationships between academia and the state as they pertain to the creation and use of technology-based course materials, particularly in the new technological context of higher education However, this study has the limitations of all case studies Evidence suggests that many institutions and boards are rethinking and revamping intellectual property policies to respond to the new technological context Our understanding of this process will be greatly enhanced by survey research on the problem-definition dynamics occurring at a larger number of institutions

For administrators, trustees, and faculty who participate directly in institutional governance, one important lesson of this study is that the development of course ownership policies will occur in a new, evolving, and somewhat unfamiliar context that includes not only new technologies, but also new relationships between institutions and the state and marketplace Effective policy making is likely to require considerable attention to the process in which the policy problem is collectively defined, including an assurance that the broader context of higher education and its impact on faculty working conditions are taken into account Another lesson of these experiences is that the responsible incorporation of advanced communications technology into teaching and learning processes in higher education in the future depends on the ability and inclination of faculty leaders to become more "activistic" or "entrepreneurial" in problem-definition and policy-formation processes Just as Rhoades (1998) decries the "marginalization" of faculty in the policy process on instructional technology, this study suggests that faculty may need to become more effective in setting the agenda for higher education policy formation by taking the lead in defining the policy problems higher education faces, rather than merely reacting to or resisting agendas established by others Faculty activism may be particularly important if higher education in the United States is to successfully preserve and develop its sense of purpose and value, as course ownership policies and other conditions of faculty work are transformed by the new technological context of higher education

Notes

[1] During most of the period that the Kansas Board of Regents addressed intellectual property issues in 1995–1998, I served as the Board's Director of Academic Affairs I was in a position to observe and directly interact with the Regents and the representatives from the universities who comprised the Board's advisory community on policy issues My position entailed continuous and direct interaction not only with the Regents themselves, but with other actors who participated in the creation of new policies, including the Board's staff, the chief academic officers at the universities, and the elected representatives of faculty and student governance I was able to observe and record the contributions and responses to the problem definition process of these groups as they occurred

[2] I collected data through four sources First, during the initial and middle phases of the problem definition process, I interviewed the Regents, chief academic officers, faculty senate presidents, student government presidents, and Board of Regents staff about their perspectives on the origins of the Board's efforts to create policies on intellectual property and the dimensions of problem definition adapted from Rochefort and Cobb (1994) As the Board concluded its discussions on intellectual property by adopting an initial set of policies in November 1998, I again interviewed the Regents and the university representatives who were central to the development of the Board's policies Second, as an officer of the Board and its primary conduit to the chief academic officers, faculty, and student senates, I was able to participate in and observe the discussions at their meetings that concerned intellectual property policy issues From these discussions, I was able to glean commentary on their definition of the problem as they emerged in a group context Third, I had direct access to the agendas and minutes of all of these groups as they recorded a sense of the need to reassess and create the system's policies on intellectual property Finally, each constituent group developed and distributed various policy papers, statements, memoranda, and letters that included policy recommendations, critiques of positions articulated by other groups, and perspectives on why the university system needed to develop or resist development of intellectual property policies These documents provided extremely valuable information on how each political constituency defined the problem at each phase of the policy process

[3] The data were organized through three techniques First, I constructed a chronology of the events pertaining to intellectual property policies beginning with the Board's adoption of a patent policy in 1941 through the Board's action on November 19, 1998, to adopt a comprehensive set of policies on intellectual property for all six of the universities under its purview The chronology included (1) the various intellectual property policy decisions the Board made, (2) the positions that the constituent groups took at different points during the policy discussion in 1995– 1998, and (3) the analyses and reports issued by the Board's staff The Board's legal staff reviewed the chronology for accuracy in December 1997

Second, based on the interviews and a content analysis of policy documents, I constructed a matrix that distinguished the perspectives of the faculty, the academic administrators, and the student leaders along six dimensions of problem definition articulated by Rochefort and Cobb (1994) The purpose of the matrix was to summarize the positions of the Board's primary political constituencies through a side-by-side comparison The positions reflected in the matrix were derived from statements made by the groups in their official capacity to advise the Board Interview data was to clarify or amplify the positions expressed in official statements made by the groups The positions of the groups evolved somewhat during the course of the discussion from 1995–1998 Although the differences among the groups were mitigated during the course of the policy formation, the positions nevertheless reflect significant differences Quotes from individuals drawn from interviews are referenced in my field notes to protect the identity of the respondent The interest of the study is primarily with the collective definitions expressed by the councils

Third, I used the chronology to develop a process model for the formation of intellectual property policies by attempting to discern the existence of distinct phases of problem definition Blumer's view of social problems as a collective definition of the situation (1971) provided guidance for the creation of a model that is applicable to the policy process that emerged in the Board's development of intellectual property policies

[4] The data from Table 1 were drawn from a content analysis of written reports provided by the councils to the Board of Regents in January 1998 Statements by the councils in these documents were coded and categorized according to each of the six dimensions of problem definition described in the text Summaries of the councils' positions on each of the six dimensions were developed based on the categorized statements The summaries were reviewed by the councils for accuracy in December 1997 and January 1998

[5] The six dimensions of problem definition were defined in interviews with the constituent groups These dimensions were also used by the Board's academic staff to organize the written materials prepared by each group during the policy dialogue the Board held on the topic of intellectual property

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The Consolidation of Responsibility and Students' Definitions of Situation in the Mixed-Age College Classroom

Sociologists have long pointed out that when people enter social situations they bring along with them certain understandings, sometimes called typificatory schemes (Berger & Luckmann, 1967), of the normative behaviors expected of them in the given situation Participants in an interaction then negotiate roles and role expectations with one another in a process of defining the situation (Goffman, 1959, 1961, McHugh, 1968) Over time habitualized typifications become institutionalized (Berger & Luckmann, 1967) The college classroom is one setting where typifications have been institutionalized, because students have clear expectations of their instructors and other students Unfortunately, their definitions of the classroom and the expected roles of students and professors often do not facilitate learning

Learning occurs most effectively in a situation where students are actively engaged with the material, other students, and their instructor (see, for example, Astin, 1985, Johnson, Johnson, & Smith, 1991, Kember & Gow, 1994, McKeachie, 1990, Meyers & Jones, 1993) Critical thinking is also fostered by students' active participation in the classroom (see, for example, Smith, 1977, Garside, 1996) Each student brings experiences to the classroom that can contribute to learning through participation in discussion Therefore, instructors should be concerned with the level and depth of student participation in classroom discussion However, experience and research demonstrate that most students operate with a "Banking Model of Education," wherein the

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instructor is the bank of knowledge from which the students make withdrawals by taking notes (Freire, 1970).

Previous Research

In 1976 Karp and Yoels identified a college classroom norm they labeled "the consolidation of responsibility." This norm suggests that in the typical classroom, participation in discussion will be consolidated in the hands of the few, with the majority of students being passive observers or only occasional participants. Howard, Short, and Clark (1996) and Howard and Henney (1998) have found that the "consolidation of responsibility" is still the operative norm for discussion, at least in the mixed-age college classroom.

Studies of participation in classroom discussion have focused on issues of student gender (see, for example, Cornelius, Gray, & Constantinople, 1990; Crawford & MacLeod, 1990; Fassinger, 1995; Sternglanz & Lyberger-Ficek, 1977), instructor gender (see, for example, Auster & MacRone, 1994; Fassinger, 1995; Pearson & West 1991), class size (see, for example, Constantinople, Cornelius, & Gray, 1988; Crawford & MacLeod, 1990; Fassinger, 1995; Howard, Short, & Clark, 1996), teaching techniques (for example, Nunn, 1996) and, occasionally, student age (Howard et al., 1996; Howard & Henney, 1998). Relatively little attention has been given to the consolidation of responsibility. While the average male student might participate more frequently than the average female student, and the average nontraditional student more often than the average traditional one, there is, in essence, no "average" participant. Instead, when the consolidation of responsibility is operating, there are only "talkers"—who account for the vast majority of all interactions—and "nontalkers"—those students who speak up only occasionally, if at all (Howard et al., 1996; Howard & Henney, 1998; Karp & Yoels, 1976). Computing mean interaction levels for various demographic groupings is misleading, because it combines the participation of all students—talkers and nontalkers—within a demographic grouping into a single mean score. Instead of asking how often the average member of various demographic groupings (e.g., males versus females) participates, we need to ask who is most likely, and least likely, to accept the consolidation of responsibility and why?

In this study we first identified "talkers" and "nontalkers" via observation. Then we contrasted talkers' and nontalkers' definitions of the college classroom via survey and interview to account for their differing levels of participation. How do talkers versus nontalkers view the classroom? How do their respective definitions of the situation influence their decision to participate or not to participate?

Methodology

Data were collected through a triangulation of research methods observation, survey, and interview (Denzin, 1989, p 246) This triangulation of methodologies allowed us to overcome some of the limitations of any single method For example, in the aforementioned Karp and Yoels (1976) study, the authors discovered via their observations that instructor gender did affect the level of student participation in discussion despite students' denial of this possibility in their survey responses The goal of this "across method" triangulation is a more fully grounded interpretive research approach (Denzin, 1989)

This case study was conducted during the fall 1997 semester at Indiana University Purdue University Columbus—a satellite campus (approximate enrollment 1,900) of Indiana University Purdue University Indianapolis (approximate enrollment 25,000) Indiana University Purdue University Columbus is a commuter campus which has a large number of nontraditional students (46%), a high percentage of female students (63%), and little racial and ethnic diversity Because of its relatively "open" admissions policy, Indiana University Purdue University Columbus has a significant number (19%) of students who are officially designated as "underprepared" for college level work Therefore, findings based on this case study may not be generalizable to dissimilar institutions (e g , highly selective institutions, residential institutions, institutions with few nontraditional students, racially and ethnically diverse institutions, institutions with very large per course enrollments) Instead, this case study is intended to serve as a starting point for discussions of the nature of student participation in classroom discussion in a variety of campus settings

Seven students (6 females and 1 male) in an undergraduate research methods course were trained in observation techniques Each student then chose to observe a course for which they were not currently enrolled Courses for observation were selected to fit the students' schedules, thus resulting in a nonrandom sample of seven three credit hour courses[1] The courses were from the following disciplines Communications, English, history, organizational leadership, psychology (2), and sociology Four of the observed courses were 100 level, one was 200 level, and two were 300 level Four of the instructors were female and three were male Six courses met once per week for 160 minutes (including a 10-minute break). One course met twice per week in 75-minute sessions. Each course was observed four times during the first month of the semester with the once-per-week classes counting as two observations: one prior to and one after the 10- minute break. Instructor permission to observe was obtained before beginning observations. Instructors were also provided with a short announcement to read to the class informing them of the presence of an observer.

The observers recorded each instance of student verbal participation on a seating chart noting the students' gender and approximate age as either traditional (under age 25) or nontraditional (age 25 or over).[2] Interactions were coded into three categories: *student-initiated*–the student interrupts the instructor to make a comment or ask a question without invitation to do so, *instructor-initiated*–the student participates in response to a general invitation from the instructor, and *direct question*—the instructor calls upon a specific student to offer a question or comment. In addition to determining the level of participation of various demographic groups in the classroom, the purpose of the observation was to ascertain if the consolidation of responsibility was in effect in these courses and to identify the students who accepted this responsibility, thus becoming "talkers." Following the model of Karp and Yoels (1976), students who participated twice or more in a class session were considered "talkers." Students who participated once or not at all in a class session were labeled "nontalkers."

Once talkers and nontalkers were identified via observation, we conducted interviews with a nonrandom sample of 1 talker and 1 non-talker from each of the seven observed courses. Of the 14 students interviewed, 8 were female, 6 were male, 6 were nontraditional (over age 25), and 8 were traditional. The purpose of the interview was to discover the definition of the classroom employed by students in the course especially as it applied to classroom discussion.

Our final research method employed was a survey of all of the students (N = 123) in the seven observed courses. We sought to identify characteristics of students who do and do not participate in class discussion, students' reasons for participating in discussion and reasons for avoiding such participation, and students' perceptions of one another, their instructors, and the classroom environment. We also sought to discover students' perceptions of their own and the instructor's responsibilities in the classroom. In the process of analyzing the data we hoped to paint a picture of the definitions of the classroom held by various groups of students (talkers versus nontalkers, males versus females, traditional versus nontraditional).

Results and Analysis

Our observations resulted in a clear demonstration of the continued operation of the consolidation of responsibility in the college classroom[3] As Table 1 indicates, we made 599 student observations and recorded 1136 instances of student verbal participation with an average of nearly 41 interactions per 75 minute session The mean total interaction per student in a given session was 1 9 Contrary to some previous research (see, for example, Brooks, 1982, Constantinople et al , 1988, Crawford, & MacLeod, 1990, Fassinger, 1995, Pearson & West, 1991, Sternglanz & Lyberger-Ficek, 1977), a nearly equal percentage of females and males participated in discussion (53 1% to 51 5%), and females participants outpaced their male counterparts in terms of mean interactions per student (2 07 to 1 55) Consistent with previous research (Howard et al , 1996, Howard & Henney, 1998), a much higher percentage of nontraditional students (age 25 or over) participated than traditional students (59 8% to 47 1%) These nontraditional participants

TABLE 1

Interactions per Class Session by Student Gender, Student Age, and Instructor Gender (ANOVA Comparison of Means)

	Mean Interaction Per Session	Mean Attend	Mean No Students Participate	Percent Students Participate	Mean Interaction Per Student	*N*
All	40 57	21 39	11 25	52 6	1 90	599
Males (33 0%)	11 16	7 21	3 71	51 5	1 55	202 (33 0%)
Females (67 0%)	29 35	14 18	7 54	53 1	2 07	397 (67 0%)
Traditional (59 7%)	14 60	12 07	5 68	47 1	1 21	338 (59 7%)
Nontraditional (40 3%)	26 00	9 32	5 57	59 8	2 79***	261 (40 3%)
Traditional females	8 00	7 21	3 11	43 1	1 11	202 (33 7%)
Nontraditional females	21 37	6 96	4 43	63 6	3 07	195 (32 6%)
Traditional males	6 56	4 86	2 57	52 9	1 35	136 (22 7%)
Nontraditional males	4 65	2 36	1 14	48 4	1 97	66 (11 0%)
Male instructor	33 46	22 92	10 33	45 1	1 46	275 (45 9%)
Female instructor	45 97	20 25	11 94	58 9	2 27**	324 (54 1%)
N	1136	599			1136	

***Significant at 0 001 **Significant at 0 01 contributed over twice as many interactions per class session than the traditional students (2 79 to 1 21) Sessions taught by female instructors had higher mean interactions totals per 75 minute session (45 97 to 33 46) and a higher percentage of students participating (58 9% to 46 1%) than those sessions taught by males Students in female-taught classes also had higher mean total interactions than students in male-taught classes (2 27 to 1 46) Nontraditional females were by far the student demographic group with the highest participation rate (63 6%) and the highest mean number of interactions per session (3 07)

Thus at first glance, it appears that approximately half of the students participate at a rate of almost two interactions per class session each However, as noted earlier, computing mean levels of interactions can be misleading when the consolidation of responsibility is taken into account Table 2 reveals that of the 1136 observed interactions, nearly 89% were made by "talkers" (students making two or more interactions in a class session) The typical class session with 21 students in attendance had 6 to 7 talkers making 36 of the 41 interactions (88 7%) The per-

TABLE 2

Interactions by Students Making Two or More (Twoplus) Interactions per Class Session by Student Gender, Student Age, and Instructor Gender

	No Students Making Two or More Interactions	Percent Students Making Twoplus Interactions	Mean Interactions by Twoplus Students	No Interactions by Twoplus Students	Percent all Interactions by Twoplus Students	*N*
All	6 68	31 2	5 39	36 01	88 7	599
Males (33 0%)	2 14	29 7	4 50	9 63	86 3	202 (33 0%)
Females (67 0%)	4 54	32 0	5 81	26 38	89 9	397 (67 0%)
Traditional (59 7%)	2 57	21 3	4 46	11 46	78 5	338 (59 7%)
Nontraditional (40 3%)	4 11	44 1	5 97	24 54	94 4	261 (40 3%)
Traditional females	1 39	19 3	4 51	6 27	78 4	202 (33 7%)
Nontraditional females	3 14	45 1	6 39	20 06	93 9	195 (32 6%)
Traditional males	1 18	24 3	4 39	5 18	79 0	136 (22 7%)
Nontraditional males	96	40 9	4 63	4 44	95 6	66 (11 0%)
Male instructor	6 50	28 4	4 55	29 58	88 5	275 (45 9%)
Female instructor	6 81	33 6	5 99	40 79	88 8	324 (54 1%)
N	187			1008		

centage of males who were talkers was nearly equal to that of females who were talkers (29 7% to 32%) However, nontraditional students were more than twice as likely to be talkers than traditional students (44 1% to 21 3%) Nontraditional females were the demographic group most likely to accept the consolidation of responsibility and become talkers, with 45 1 percent making two or more comments in a given session Female-taught courses had a somewhat higher percentage of students who were talkers than male-taught courses (33 6% to 28 4%) Karp and Yoels's (1976) consolidation of responsibility continues to be the defining norm in the mixed-age college classroom

The importance of student age in relation to level of participation was confirmed by survey results Through both observation and survey 31% of students were identified as talkers[4] As Table 3 shows, talkers' mean age exceeded that of nontalkers by a statistically significant 4 9 years (28 8 to 23 9) All other demographic characteristics of talkers and nontalkers (gender, mean number of credit hours taken, percentage upperclass, percentage in female-taught courses, percentage in male-taught courses, and self-defined GPA) proved to be statistically insignificant

After identifying the characteristics of talkers and nontalkers, we asked whether the norm of the consolidation of responsibility would continue to exist if we controlled for the source of interaction Using observational data, Table 4 reveals that the majority of interactions (52 6%) are student initiated— wherein the student interrupts the instructor without invitation to do so in order to make a comment or ask a question Instructor initiated interactions—the instructor invites stu-

TABLE 3

Survey Characteristics of Talkers and Nontalkers (Kendall's tau—except where indicated)

Characteristic	Nontalkers	Talkers	All
Mean age (Oneway ANOVA)	23 9	28 8**	25 39
Mean credit hour enrollment	10 7	10 2	10 52
Percentage female	67 9	32 1	68 3
Percentage male	71 8	28 3	31 7
Percentage upper-class (junior/senior)	25 9	18 4	23 5
Percentage in female-taught courses	65 7	34 3	100
Percentage in male-taught courses	73 6	26 4	100
Percentage self-defined A student	23 5	28 9	25 2
Percentage self-defined B student	63 5	65 8	64 2
Percentage self-defined C student	12 9	5 3	10 6
N	85 (69 1%)	38 (30 9%)	123

**Significant at 0 01

TABLE 4

Mean Interactions by Source per Student per Session (ANOVA Comparison of Means)

	Total	Student-Initiated	Instructor-Initiated	Direct Question	*N*	Mean Attend
All	1 90	1 00	0 77	0 13	599	21 4
Male	1 55	0 71	0 71	0 13	202	7 2
Female	2 07	1 15*	0 80	0 12	397	14 2
Traditional	1 21	0 51	0 58	0 12	338	12 1
Nontraditional	2 79***	1 64***	1 02**	0 13	261	9 3
Male instructor	1 46	0 85	0 51	0 00	275	22 9
Female instructor	2 27**	1 12	0 99**	0 15	324	20 3
N	1136	598 (52 6%)	462 (40 7%)	76 (6 7%)		

ANOVA Comparison of Means ***significant at 0 001 **significant at 0 01 *significant at 0 05

dents' comments and questions—accounted for another 41% of all interactions, while direct questions—the instructor calls on a specific student—were only 7% of all interactions We see that the patterns for gender and age remain much the same with student- initiated and instructor-initiated interactions females were somewhat more likely than males to participate, nontraditional were much more likely than traditional students to participate, and students in female-taught courses were more likely to participate than their counterparts in male-taught courses However, as Howard et al (1996) found, the gaps between the various pairings (males versus females, traditional versus nontraditional) were smaller with instructor-initiated interactions than with student-initiated interactions Female instructors were significantly more likely to employ instructor initiated interactions than male instructors Otherwise, there was little difference between groups

Table 5 provides evidence that the consolidation of responsibility was strong with regard to both student-initiated (86 5% of interactions made by twoplus students) and instructor- initiated (77 9% of interactions made by twoplus students) interactions, but not with direct questions (26 3% of interactions made by twoplus students) This suggests that instructors do not tend to call on the same few students, thus creating the Consolidation of Responsibility, instead, by making participation in discussions entirely voluntary, the same few students volunteer and thus create the Consolidation of Responsibility

Table 6 allows us a look at these talkers by demographic groupings We find that while females are slightly more likely to be talkers (32 0% to 29 7%), the difference was not statistically significant However, non-

TABLE 5

Interactions by Students Making Two or More Interactions by Source

Source	Number of Interactions	Number Students Making Two or More Interactions	Percent of Students Making Twoplus Interactions	Number Interactions Made by Twoplus Students	Mean Interactions by Twoplus Students	Percent all Interactions Made by Twoplus Students
All	1136	187	31 2	1008	5 39	88 7
Student-initiated	598	103	18 2	517	5 02	86 5
Instructor-initiated	462	86	14 4	360	4 19	77 9
Direct Questions	76	5	0 8	20	4 00	26 3

Student *N* = 599

TABLE 6

Percent of Students Making Two or More Interactions by Interaction Source (Kendall's tau)

	Total Interactions	Student-Initiated Interactions	Instructor-Initiated Interactions	Direct Questions	*N*
All Students	31 2	18 2	14 4	0 08	599
Males	29 7	16 3	13 9	1 5	202
Females	32 0	19 1	14 6	0 5	395
Traditional	21 3	8 6	10 9	0 3	338
Nontraditional	44 1***	30 7***	18 8**	1 5	261
Female instructor	33 6	18 2	18 8	0 6	275
Male instructor	28 4	18 2	9 1***	1 1	324
N	1136	598	462	76	599

**Significant at 0 01 ***Significant at 0 001

traditional students are much more likely than traditional students to be talkers (44 1% to 21 3%), and the difference was statistically significant Nontraditional students were significantly more likely than traditional students to make both two or more student-initiated (30 7% to 8 6%) and instructor-initiated (18 8% to 10 9%) interactions We also found a statistically significant greater percentage of talkers in response to instructor-initiated interactions in female-taught courses as compared to male-taught courses (18 8% to 9 1%) The most significant demographic variables in determining the number of students who will become talkers—accepting the consolidation of responsibility—are student age and, at least in the case of instructor-initiated interactions, instructor gender

After identifying talkers and nontalkers via observation, we attempted to account for the differing levels of participation by comparing definitions of the college classroom through interview and survey We discovered that nontalkers, more so than talkers, tended (1) to see their role in the classroom as a largely passive one, (2) to view the classroom as a potentially threatening environment, and (3) to view the instructor as the sole source of authoritative knowledge Both groups of students (4) tended to view talkers as generally helpful, but possibly becoming annoying by taking too much time away from the "expert" instructor, (5) primarily viewed nontalkers as either shy or uninterested, and (6) viewed students as "customers," thus placing limitations on what they thought instructors should do to force students to participate in discussion

Passivity in the Classroom

Survey results indicated that nontalkers saw their role in the classroom as a much more passive one than did talkers As Table 7 shows, at least 96% of both nontalkers and talkers agreed that students should complete assigned tasks, attend class, study and learn However, only 50 6% of nontalkers surveyed (compared to 94 7% of talkers) indicated that they thought students had a responsibility to participate in discussion Nontalkers were also significantly less likely than talkers to indicate that they had a responsibility to pay attention in class (95 3 to 100%) and to ask for help from the instructor when they needed it (92 9 to 100%)

As Table 8 shows, when we asked students to identify their reasons for participation (via survey) in the class discussion, we discovered that talkers were significantly more likely to say that they had "something to

TABLE 7

Students' Perceived Responsibilities by Level of Participation (Kendall's tau)

My responsibilities as a student include (Circle all that apply)	Nontalker	Talker	All
complete assigned tasks	97 6	100	98 4
attend class	96 5	100	97 6
study for exams/quizzes	96 5	100	97 6
learn the material	96 5	100	97 6
pay attention in class	95 3	100*	96 7
ask for help from the instructor when I need it	92 9	100*	95 1
participate in class discussion	50 6	94 7***	64 2
Other (Please specify)	1 2	7 9	3 3
N	85	38	123

*significant at 0 05 ***significant at 0 001

TABLE 8

Reasons for Participation in Discussion by Level of Participation (Kendall's tau)

In this class, I participate in discussion because (Circle all that apply)	Nontalker	Talker	All
I have something to share	61 2	84 2**	68 3
I need clarification	52 9	65 8	56 9
I learn more when I participate	32 9	78 9***	47 2
the instructor calls on me	29 4	21 1	26 8
participation may help my grade	25 9	28 9	26 8
I disagree with something the instructor said	18 8	34 2	23 6
I like to talk	14 1	31 6*	19 5
if I don't, no one else will	9 4	34 2**	17 1
I don't participate in discussion	15 3	0 0***	10 6
I am trying to help other students	7 1	15 8	9 8
Other (Please specify)	5 9	2 6	4 9
N	85	38	123

*significant at 0 05 **significant at 0 01 ***significant at 0 001

share", that they "learn more when they participate", that they "like to talk", and that they participate because "no one else will " Each of these findings were reflected in interview comments indicating that talkers think participation is a part of what is required of students, whereas nontalkers see such participation as optional rather than required in the college classroom

The nontalkers, when interviewed, tended to describe their responsibilities as a student and their definitions of class participation in largely passive terms

> I basically just listen I just usually try and take in all other opinions and facts and try to learn it all I'm pretty passive *Traditional male non-talker*
>
> I would much rather hear the instructor speak than me I will only ask a question if I need clarification *Traditional female non-talker*
>
> I never have anything to say *Traditional female non-talker*
>
> [My responsibilities as a student include,] I guess, just to be there *Traditional male non-talker*
>
> [In response to the question, what are your responsibilities as a student in the classroom?] You mean other than showing up? *Traditional female non-talker*

Clearly, the nontalkers interviewed defined their role in the classroom as a passive one Some thought they had fulfilled their obligations as students with their mere presence The instructor was the only one who was required to be actively involved in the classroom As one might expect, talkers, on the other hand, saw the classroom as an environment requiring a more active approach, thinking it necessary to participate in discussion in order to facilitate their learning and fulfill their responsibilities as students

> Just because you are there does not mean you are participating If you have something to say, you need to say it *Traditional male talker*
>
> I think you learn more by being prepared and talking or asking questions about the subject Even if you are prepared and don't say anything, I don't think you learn as much *Traditional male talker*
>
> Be active Get the points clarified, if they're not [clear] *Nontraditional male talker*

The talkers interviewed also showed sensitivity to the feelings of the instructor and pedagogical needs of the class more generally They were willing to accept responsibility, as students, to actively facilitate their own learning and that of their classmates

> I also don't like a long span of somebody not talking It makes me uncomfortable if nobody answers Then I'll answer *Nontraditional female talker*
>
> If I am in a room where nobody talks, I'll be generally the one who starts talking or whatever I think that discourages the teacher, I mean if she's asking questions and nobody participates, that kind of discourages It would be like, "Why am I doing this? Nobody's listening " *Traditional male talker*
>
> [Student responsibilities are] to answer questions and to help the class know what you know *Nontraditional female talker*
>
> A lot of times, people will have questions about things and not everybody will bring up the questions even if they have a question Usually, if you have people who participate frequently and the teacher is not expressing something very clearly, the people who participate will speak up and kind of speak for the class and express that they don't understand *Traditional male talker*

Thus the talkers we interviewed willingly accepted the consolidation of responsibility for participation in discussion and, at least on occasion, consciously recognized themselves doing so

The Classroom as a Potentially Threatening Environment

Nontalkers showed a greater degree of concern with how they are received by their peers and their instructors, suggesting that they perceive the classroom as a potentially hostile, threatening environment As revealed in Table 9, when we asked students why they choose not to participate in discussion, we found that nontalkers were significantly more likely than talkers to cite "the chance that I would appear unintelligent to other students", "the chance I would appear unintelligent to the instructor", "the class is too large", and "I am shy" Each of these reasons ex-

TABLE 9

Reasons Why Students Choose Not to Participate by Level of Participation (Kendall's tau)

In this class, when I choose NOT to participate in discussion I do so because (Circle all that apply)	Nontalker	Talker	All
of the feeling that I don't know enough	50 6	44 7	48 8
of the chance I would appear unintelligent to other students	47 1	13 2***	36 6
my ideas are not well enough formulated	34 1	36 8	35 0
I have nothing to contribute	31 8	37 2	35 0
I have not completed the assigned tasks (I am not prepared)	30 6	39 5	33 3
I am shy	43 5	7 9***	32 5
of the chance I would appear unintelligent to the instructor	37 6	15 8**	30 9
someone else will participate therefore I don't need to	27 1	5 3***	20 3
the class is too large	23 5	2 6***	17 1
I always participate	5 9	31 6**	13 8
the course is not interesting to me	12 9	31 3	13 0
Other (Please specify)	4 7	15 8	8 1
the instructor does not want participation or discussion	7 1	7 9	7 3
N	85	38	123

**significant at 0 01 ***significant at 0 001

presses an underlying lack of confidence on the part of nontalkers, and they also indicate that nontalkers do not feel secure enough in their classroom environment to take the risk of participation in discussion

Interview comments revealed that it was important to nontalkers that others show respect and courtesy to them

> I'm just not comfortable talking in front of a large group of people I guess 'cause maybe I will say something more stupid or something that is wrong, you know Most of the time I think that I'm right, but I don't say it because of fear that I will be wrong I guess, you know, I'm kind of embarrassed *Traditional female non-talker*
>
> Other responsibilities that students have are to respect the opinions of others *Traditional female non-talker*

Instructor as Sole Source of Knowledge

Not surprisingly, talkers and nontalkers alike viewed instructors as authorities who brought expert knowledge to the classroom It was the instructor's accumulated wisdom that was to be the focus of the class session As Table 10 indicates, talkers and nontalkers agreed that instructors had a responsibility to (a) be knowledgeable of the subject matter, (b) make the class interesting, and (c) follow the syllabus Talkers were significantly more likely than nontalkers to perceive that the instructor had a responsibility to help students think critically—which requires a greater degree of involvement on the part of students However,

TABLE 10

Perceived Instructor Responsibility by Level of Participation (Kendall's tau)

The instructor's responsibilities to me as a student include (Circle all that apply)	Nontalkers	Talkers	All
be knowledgeable of the subject matter	96 5	100	97 6
make the class interesting	91 8	92 1	91 9
help me think critically about the material	71 8	86 8*	76 4
follow the syllabus	70 6	72 2	71 5
motivate me to participate in discussion	45 9	60 5	50 4
know me by name	41 2	47 4	43 1
call on me to participate in discussion	12 9	23 7	16 3
Other (Please specify)	14 1	18 4	15 4
N	85	38	123

*significant at 0 05

what stands out on Table 10 is that students, talkers and nontalkers alike, did not perceive that instructors were responsible for motivating their active participation in the course Only half of those surveyed thought the instructor was responsible to motivate them to participate in discussion, only 43% felt the instructor should know them by name, and only 16% thought the instructor was responsible to call on them to participate in discussion

Another significant difference between talkers and nontalkers was their perception of opportunities for participation in the classroom As Table 11 reveals, talkers were significantly more likely than nontalkers to agree that instructors paused long enough (94 7% to 80 0%) and frequently enough (92 1% to 78 8%) to allow them to ask questions The underlying message of both the survey and interview data was that the instructor must be active and interesting, whereas students were free to choose to be passive observers

Operating with a bank of knowledge model, students thought that instructors were the bank of wisdom from which they made withdrawals by taking notes (Freire, 1970)

> The instructor is there to teach you what you need to know *Traditional female non-talker*
>
> They need to be knowledgeable of the subject, and they pretty much need to be an expert in the area that they're teaching *Nontraditional female talker*
>
> [The instructor is responsible] to get the information out *Nontraditional male talker*

When we asked students what they thought were the responsibilities of the instructor, they expressed concern that the expert knowledge be provided in a format that was easily understandable

TABLE 11

Perceptions of Classroom Environment, Instructor Behaviors, and Other Students by Level of Participation (Kendall's tau)

Percentage Who Strongly Agree or Agree with following statements	Nontalkers	Talkers	All
This instructor pauses long enough to allow me to ask questions or make comments	80.0	94.7***	84.6
This instructor pauses frequently enough to allow me to ask questions or make comments	78.8	92.1***	82.9
In this class, students who frequently participate in discussion are helpful to me	60.0	92.1***	69.9
I sometimes find myself getting annoyed with students who talk too much	65.1	42.1**	57.8
It is fair for an instructor to make verbal participation a part of my grade	29.4	73.7***	43.1
I sometimes find myself getting annoyed with students who do not participate in class discussion	6.0	15.8***	9.0
N	85	38	123

***significant at 0.001 **significant at 0.01

> To get his points across clearly. To make sure everyone understands it, [be]cause I'm not very high on the professor that talks above you, I like everybody to understand it. I like somebody to talk with you instead of down at you. *Traditional male non-talker*

> To explain things in a fashion that the students will understand. *Traditional male talker*

The responsibility to provide expertise and communicate it clearly was placed on instructors, whereas students were responsible for the relatively passive act of recording it in their notes. However, talkers did tend to see a place for their own contributions to that knowledge, whereas nontalkers did not.

> [Instructors] also need to listen to the students. Sometimes the students may know something the instructor doesn't know. *Traditional male talker*

> I like to add what I think or know of the subject. Some of these topics I deal with at work so I like to get involved. *Traditional male talker*

> I think that when you voice an opinion you give an overview, a better perspective, a wider, broader view of an issue. Or you may bring up some issues that haven't been talked about, or you may point out some issues that are significant to the issue that is being discussed. *Nontraditional male talker*

> I feel wisdom in age, in what I've done. I may help someone else out there to experience a part of what the lesson is for the day. *Nontraditional male talker*

> [Other students] asking questions, a lot of times, it brings out questions you didn't think to ask. It helps you learn. *Nontraditional female talker*

Perceptions of Talkers

In general, talkers and nontalkers alike found their talkative classmates to contribute to learning, particularly by seeking clarification from the instructor when students were confused However, nontalkers frequently were concerned that talkative classmates who sought to inject their own experiences and insights into the discussion took too much time away from the "true expert" in the classroom—the instructor

We found that nontalkers were significantly more likely to become annoyed with classmates "who talk too much" than were talkers (65 1% to 42 1%) (see Table 11) These survey responses were affirmed in interview comments about classmates' perceptions of talkers

> Students who continually speak take away time from the instructor I want to be assured that I am getting all of the information that I can while I am in class *Traditional female non-talker*
>
> When they just want to throw in what they have to say They've experienced the same thing a week ago or whatever That's not what we are in there for *Traditional female non-talker*

To be a talker, then, involved some risk Classmates will likely appreciate the talker's willingness to ask the instructor for clarification of confusing subject matter, but to offer one's own insights or experiences as relevant knowledge may mean being perceived as wasting valuable class time—time that some classmates perceive should be spend listening to the expert instructor's comments instead

Perceptions of Nontalkers

For the students who choose to be nontalkers, the risks involved in participation outweighed those involved in nonparticipation As long as one was not disruptive or disrespectful, most classmates were likely to assume you were merely shy rather than failing to fulfill your responsibilities in the classroom However, as Table 11 shows, the talkers we surveyed were significantly more likely to become annoyed with "students who do not participate in class discussion" than were other nontalkers (6 0% to 15 8%) But clearly, the greater risk, as measured by the percentage of students overall who were likely to become annoyed, was associated with being a talker (57 8% to 9 0%)

To be a non-talker had a different type of risk in terms of the perceptions of your classmates Nontalkers were perceived as being of two types First, there are students who remain silent because they are shy Second, there are students who are silent because of a lack of interest or motivation Often, students thought, it was difficult to tell the two apart—barring some type of body language or disruptive behavior that would provide a clue.

> I think there are two types of students who don't participate. Some are just shy naturally and have trouble in any size group. And I think the other type is the group who doesn't prepare their lessons and so therefore, they can't participate. *Nontraditional female talker*
>
> There are those, that because of their upbringing, are not very vocal. They're introverted individuals. They may be gleaning a lot of information from what is going on and just not reflecting it by speaking up. There are others . . . who really don't participate and will sit back. They are getting less out of the course because they are more interested in passing that side note or talking that side thing in the class. I find that their attention span is really small compared to what should be going on. *Nontraditional male talker*

Students as Customers

Although many students, talkers especially, agreed that participation would facilitate learning, they were ambivalent about instructors who would require or grade participation in discussion. Thus, as we saw in Table 10, only half of the students surveyed indicated that the instructor had a responsibility to motivate discussion. Table 11 revealed that only 43% of all students and only 29.4% of nontalkers thought it was fair for an instructor to make verbal participation a part of their grade. The underlying definition of the situation was that the seller should always make things as comfortable as possible for the buyer. The instructor is paid to be active. Students, as consumers, have purchased the right to choose a passive role if they wish. To make them uncomfortable by requiring they participate in discussion was deemed an unreasonable expectation by many of the students interviewed.

To our surprise, much of their hesitation was rooted in a view of "students as customers." In constructing our interview guides, we had not planned on asking questions specifically designed to acquire student views on the student-as-customer analogy. Nonetheless, the analogy kept coming up, both directly and indirectly, in interview responses. In the student-as-customer perspective described by interviewees, the seller should not make the customer feel uncomfortable. Thus, as applied in the classroom, the student has purchased the right to a comfortable environment and the right to choose their degree of involvement or noninvolvement.

> [Students are] paying for it, so if they want to [participate in discussion] they should, and if they don't want to, they shouldn't have to. *Traditional female non-talker*
>
> I don't think you should force anything to the students. Even though you will

> be using it later in your careers If they don't want to, I think that is their decision *Traditional male non-talker*
>
> It is not fair to force someone to verbally participate if they do not feel comfortable doing so *Traditional female non-talker*
>
> If a person pays their money, they should be able to determine whether or not they talk It's their money *Nontraditional female talker*
>
> For the price we pay for tuition, I expect a true expert I would much rather hear the instructor speak than me *Traditional female non-talker*
>
> I think that it should be up to them [the students] if they want to speak or not The instructor is the one paid to show up and talk to the class Not the other way around *Traditional female talker*

In sum, although students are willing to recognize the contributions of student participation to learning, seeing themselves as educational consumers, they are often hesitant to define it as something that can be reasonably required of them

Conclusion

The consolidation of responsibility continues to be the defining norm for participation in discussion in the mixed-age college classroom It is the nontraditional students who most readily accept the responsibility for discussion, whereas their younger classmates choose to adopt a much more passive role in the classroom Nontalkers and talkers are operating from differing definitions of student and instructor responsibilities in the classroom

Nontalkers see their more passive role as justifiable because they view themselves as consumers of education As consumers, they think they have purchased the right of nonparticipation Therefore, instructors should not make them uncomfortable by requiring that they participate Nontalkers make this assumption in spite of their recognition of how participation can lead to increased learning and better preparation for careers The instructor is the paid expert, and it is his or her responsibility to deliver knowledge in an easily understandable form

Talkers largely share this student-as-consumer assumption, thinking that if students don't want to participate they should not be forced to do so Nonetheless, talkers choose to participate because they think it facilitates their learning and that they, in addition to the instructor, have knowledge to contribute to the class

McMillan and Cheney (1996), though acknowledging the positive aspects of accountability and responsiveness that the student-as-consumer metaphor highlights, point out that the metaphor also obscures or dismisses several vital aspects of the educational process At least three of these obscured aspects were explicit or implicit in the comments of the students interviewed in this study. First, McMillan and Cheney (1996) suggest that the student-as-consumer metaphor suggests undue distance between the student and the educational process. Students become purchasers of education rather than cocreators within the educational experience—something clearly demonstrated in survey responses and interview comments in this study. Second, the metaphor makes professors vendors and entertainers "hawking their wares" in the effort to keep the "always-right-consumer" happy. We no longer ask, Did students learn? Instead, the metaphor suggests the question, Are student-customers pleased? Though this may be an appropriate question in the bursar's or the registrar's office, it may lead to less learning should it be taken too far in the professor's office. Thirdly, the metaphor reduces the educational experience to a product to be purchased rather than a process that requires students' active participation. Again, as the students interviewed in this study confirmed, "Student 'consumers' expect an exchange between the teacher and student which is increasingly monologic and unidirectional. in fact they may demand it" (McMillan & Cheney, 1996, p. 9). When students hold such definitions, instructors are placed in an especially difficult situation. To challenge them may generate student resistance and possibly lower scores on course evaluations, evaluations that may be waived in front of instructors as administrators insist that "students are our customers." Yet, to accept students' passive definitions of their role in the classroom may well mean that less learning will occur.

The student-as-consumer model raises issues beyond participation in class discussion. If it is unfair to make students uncomfortable in the classroom, is requiring that they read challenging material unfair? Is it unfair to give a rigorous exam? Is it unfair to require a paper that necessitates research—something more than a student's unsubstantiated opinion? Is it fair to require students to conduct potentially uncomfortable self-assessments in their writing? All of these requirements, when used properly, can facilitate greater learning. Yet each also, potentially, makes student consumers uncomfortable. Ought instructors to cease making such expectations a part of their courses because students don't want to be made to feel uncomfortable? Colleges and universities need to carefully consider their use of the student-as-consumer analogy. Administrators may properly use the analogy to promote quality teaching and administrative services. However, students may carry the analogy into the classroom and make assumptions that promote their passivity and, hence, less learning.

The "student-as-consumer" analogy needs to be balanced with the "student's parents-as-consumers," the "student's future employer-as-consumer," and the "student's nation or society-as-consumer" analogies When we place our responsibilities as educators to students in light of our responsibilities to parents, employers, and broader society, the desire to "please" students takes a secondary role to the desire to ensure that students learn If students are educational consumers, then they are entering into an economic transaction similar to when they hire a physical fitness trainer The trainer's job, as well as the educator's job, is to push students to achieve more than they thought possible That will involve some pain and considerable effort on the consumer's part Merely seeking to keep the consumer content and avoiding all discomfort without ever causing them to develop greater ability is to do the consumer a serious disservice Administrators need to use care when employing the "student-as-consumer" analogy Clearly, it is appropriate in certain aspects of higher education However, employing the analogy in the classroom can cause students to adopt definitions of their own roles that are detrimental to learning

We must recognize our own culpability in facilitating students' adoption of these definitions Research has demonstrated that active participation in the classroom facilitates learning Yet, if instructors view participation in discussion as something that is optional, a byproduct of lectures that only happens spontaneously, we encourage and reinforce students' passivity If we rely on students to initiate discussion rather than structuring it into courses and assessment of student learning, then it is quite reasonable that students should see their participation as optional There is an abundance of pedagogical literature (see McKeachie, 1990 for an overview) extolling the value of active learning and offering techniques that can be adopted Instructors need to take advantage of this literature and begin redefining our classrooms for our students and ourselves Administrators need to reward instructors who take this responsibility seriously

Further research is warranted to address both the issue of the consolidation of responsibility in the college classroom and the impact of the student-as-consumer analogy Research needs to be conducted at a diverse array of institutions before we can fully understand and seek to improve higher education for talkers and nontalkers alike by the application of sociological knowledge in our own backyards

Notes

[1] Despite being nonrandom, the resulting sample closely approximated the overall student enrollment Nontraditional students made up 46% of total enrollment and 40 3%

of the sample While 67% of the sample of observed students was female, 63% of the overall enrollment was female

[2] Observers' categorization by age closely approximated the survey findings According to observational data, 40 3% of students were nontraditional (age 25 or older), while according to the survey 36 4% were nontraditional students The discrepancy could be due to changes in attendance from the first few weeks of the semester, when observations were made, to the second half of the semester, when the surveys were conducted

[3] Both the observational data and the survey data suggest that our nonrandom sample approximates the campus as a whole In regard to student gender, the percentage of female students was relatively consistent (67% of students observed, 68% of students surveyed, and 63% of campus enrollment) Student age was similarly consistent in terms of the percentage of students who were "nontraditional"—age 25 or over (40% of students observed, 36% of students surveyed, and 46% of campus enrollment)

[4] Based on our observation of student participation levels in classroom discussion, we concluded that many students overestimated their participation in survey responses Thus, in analyzing the survey data we defined "talkers" as students who perceived they made three or more contributions to class discussion in a typical class session This resulted in 30 9% of students being defined as "talkers"—a percentage that accurately reflects our observations of students making two or more comments per session (31 2%) If we defined "talkers" as those who perceived that they made two or more contributions, an inflated 53 7 percent of all students would qualify as "talkers"

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Adrianna Kezar

Pluralistic Leadership

Incorporating Diverse Voices

Introduction

Various studies have illustrated the inability of hierarchical models (i e , chain of command, top-level decision making, control, etc) of leadership for meeting the challenges facing higher education institutions (Bensimon & Neumann, 1993) Challenges, such as cost containment, accountability to the public, globalization, integrating technology, and measuring of student outcomes, require more participatory forms of leadership than have existed in the past (Rosener, 1990) As institutions have realized this and expanded leadership to include more individuals, there has been limited examination of how leadership might be interpreted differently by groups and individuals on college campuses, in particular, faculty, other levels of administration, and staff Participatory leadership models, which rely on interdependence and collective efforts, necessitate that campus participants feel included in the leadership process and emphasize communication throughout the organization as critical for organizational success (Astin & Leland, 1991, Bensimon & Neumann, 1993, Rosener, 1990, Tierney, 1989) Similar to hierarchical leadership models, participatory models assume a common leadership reality for all individuals within the organization

However, recent research illustrates that the assumption of a common understanding of leadership will result in significant challenges for organizations For example, a growing body of scholarship provides evidence that women enact, think about, and interpret leadership differently

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from traditional images/models, which are based on the experiences of white men in positions of authority (Astin & Leland, 1991, Bensimon & Neumann, 1993, Rosener, 1990)[1] The research on women provides a foundation for examining other fundamental aspects of a person's identity that might be related to the way they interpret leadership These studies focused on the question of whether who we are, based on our experiences, is related to what we know about leadership An epistemological theory has emerged that shows promise for understanding these differences—positionality theory This theory suggests that in addition to differences in background, power conditions shape perspectives Because leadership has traditionally been closely associated with authority and power, focusing on the notion of power for explaining differences in leadership interpretations seems a logical connection

Why should we be concerned about these multiple voices? Research focused on cultural diversity in organizations illustrates that stifling or not acknowledging difference leads to inefficiency, lack of productivity, reduced quality, and the inability to meet organizational goals (Cox, 1993) In contrast, knowledge of cultural differences enhances work relationships, effectiveness, and the ability to reach organizational goals (Cox, 1993) Many institutions find themselves struggling with resistance, losing disenfranchised faculty or administrators who think others do not respect their perspectives, and embattled with miscommunication and conflict

This study builds on the earlier research by Astin and Leland (1991), Rosener (1990), and Helgesen (1990) that examined gender exclusively, focusing on several conditions that might differentiate an individual's experience and resultant perspective The reasons for different perspectives—power conditions, culture, contextual influences—are also largely unexamined, making it difficult to address and change this condition In this article I address the following research questions *How does positionality (i e , role as faculty, location in the academic bureaucracy) relate to interpretations of leadership? and How do conditions of power relate to interpretations of leadership?* The purpose of the article is to examine differences in leadership perspectives in higher education, to create a framework for understanding these differences and why they exist, and to help individuals and institutions to recognize and negotiate these differences in order to meet the challenges ascribed to leadership[2]

Literature Review

This section reviews relevant leadership literature in three areas First, I review earlier leadership research (1950–1985), illustrating why differing interpretations of leadership were not examined The second section presents more recent literature (1985–1999), examining how one group—women—interpret leadership uniquely This section helps to unfold the exploration of leadership from an epistemological perspective In this discussion I note that faculty perspectives on leadership are virtually unexplored and were, therefore, a focus within this study The third section compares administrator and faculty interpretations of other organizational phenomena, such as decision making or curriculum, suggesting that each might also interpret leadership uniquely Across all this literature, there is a gap regarding our understanding of how and why interpretations of leadership differ This study explores this gap by considering a significant condition—power— as a positioning force within higher education institutions

Early leadership research (1950–1985) assumed a mostly shared or singular reality—leadership as hierarchical, authority-based, power- and influence-oriented, etc Yet, the result of believing in a singular "reality" was that researchers tended not to explore differing viewpoints (Denzin & Lincoln, 1994) [3] More recent studies within the contingency and cognitive traditions challenge this viewpoint These researchers illustrate that there is no universal definition of leadership, its meaning or definition tends to be local and impacted by context (Bensimon, 1989, Birnbaum, 1992, Bolman & Deal, 1984, Martin, 1992, Tierney, 1988a, 1988b, 1988c) Furthermore, leadership research over the last decade has begun to demonstrate the influence of perspective and perception (Ayman, 1993, Bolman & Deal, 1984, Chemers & Ayman, 1993) Cognitive and cultural research traditions have provided support for the view that leadership is socially constructed between people, thus, its meaning is negotiated among individuals or groups (Calas & Smirich, 1992) Although there is increasing support for local definitions of leadership and the importance of culture on the enactment of leadership, few researchers have explored the possibility that our experiences are related to understandings of leadership

The literature on women leaders has brought the assumptions of earlier leadership work into question Earlier models of leadership, derived almost exclusively from all male samples, provide descriptions of traits, behaviors, and influence strategies associated with leaders These models are exemplified by individuality, hierarchical power, depersonalization, persuasion, and control, among other characteristics (Fisher, 1984, Kerr & Gade, 1986) Recent literature that focused on women's leadership describes a very different image of leadership—a more participatory, relational, and interpersonal style In addition, these studies present different types of power and influence strategies, such as reciprocity and collectivity Moreover, women leaders tend to conceptualize leadership as collective rather than individualistic They emphasize responsibility toward others and empower others to act within the organization, and they deemphasize hierarchical relationships (Astin & Leland, 1991, Cantor & Bernay, 1992, Ferguson, 1984, Helgesen, 1990, Rosener, 1990, Shakeshaft, 1987, Statham, 1987) [4] There is growing evidence that earlier models of leadership in higher education tend to be exclusive and represent an orientation to leadership derived from those traditionally in positions of power, i e , a mostly white, male, upper-middle class, heterosexual orientation to leadership (Amey & Tombley, 1992, Bensimon, 1989, Bensimon & Neumann, 1993, Calas & Smirich, 1992, Cross & Ravekes, 1990, Lyons, 1990) Also, these studies did not examine multiple aspects of identity, such as race, social class, or role within an organization, in order to determine how these conditions appear to interact

The assumption that an exclusive group's interpretation of leadership (i e , college presidents and others in positions of authority) is inclusive of how different individuals understand leadership has been questioned (Martin, 1992, Tierney, 1988c, 1989) As noted in the problem statement, the most popular model—participatory leadership—requires all individuals to be involved in the leadership process Yet, there is evidence that hierarchical models of leadership have excluded the understandings of people who do not hold formal leadership positions In higher education, this would include people such as faculty, students, or alumni Past leadership research in higher education has focused mostly on people in authority, especially college presidents (but sometimes deans or department chairs), and assumed that leadership can be understood best from these official leaders' stories and descriptions (Bensimon, Neumann, & Birnbaum, 1989, Cohen & March, 1986, Fisher, 1984, Kerr & Gade, 1986) Although perspectives were illustrated to differ depending on one's role within an organization, leadership researchers chose presidents exclusively to develop leadership models (Bensimon, 1989, Birnbaum, 1992, Chemers & Ayman, 1993, Martin, 1992, Peterson & White, 1992)

In a few studies, leadership has been explored from the perspectives of other institutional participants (e g , faculty, trustees, or alumni), however, most studies continue to focus on positional leaders as an embodiment of leadership (Bensimon, Neumann, & Birnbaum, 1989) [5] Narrow studies such as these have limited an understanding about the views of leadership that other organizational members hold and these members' role within leadership In summary, this literature suggests that women's views on leadership do indeed differ from men Research on faculty suggests that their views on leadership might also differ from administrators, but this needs to be empirically tested

Yet the literature on different leadership perspectives (mostly utilizing standpoint theory, examining how gender impacts the way an individual views the world) offers incomplete explanations of why these differences exist It also does not examine identity as complex, with multiple and overlapping aspects Positionality theory provides a framework for understanding multiple perspectives This theory has been applied to various issues, including different belief systems and developing knowledge, and it might also prove useful in understanding organizational and administrative issues

Theoretical Framework

It is important to understand some of the assumptions of positionality theory, for this is the major framework shaping the methodology and interpretations of this study This framework is helpful in interpreting organizational leadership and for future studies of leadership that intend to understand group and individual interpretations Positionality theory examines whether who we are, based on our experience, influences what or how we know (Alcoff, 1987, Berger & Luckmann, 1967, Tierney, 1993) Essentially, the knower impacts what is known—in this case, interpretations of leadership This theory advances standpoint theory, which tends to look at one aspect of a person's experience, e g , gender, and associated power conditions Thus, the concept of positionality resists a fixed, static, essentialistic view of standpoints that is associated with many strands of standpoint theory—for example, that all women have a particular unchanging view (Alcoff, 1988, Collins, 1993, Haraway, 1991) Positionality theory acknowledges that people have multiple, overlapping identities and thus make meaning from various aspects of their identity, including social class, professional standing, and so forth Therefore it is more complex and dynamic than standpoint theory while retaining its epistemological concerns Positionality theory assumes that power relations can change and that social categories are fluid and dynamic, affected by historical and social changes Alcoff brings these various aspects together in the following quote

> When the concept of woman is defined not by a particular set of attributes but by a particular position, the internal characteristics of the person thus identified are not denoted so much as the external context within which that person is situated The external situation determines the person's relative position, just as the position of a pawn on a chessboard is considered safe or dangerous, powerful or weak, according to its relation to the other chess pieces (1988, p 433)

It is important to understand how power is defined, because this is a primary concept within positionality Within positionality theory, power is a force pervading all contexts, historical situations, and interpersonal relationships (Alcoff & Potter, 1993, Haraway, 1991) It is not conceptualized as always repressive or oppressive (Kondo, 1990) Human agency is conceptualized as important to understanding *power relations*, power conditions do not simply shape people, people shape power conditions and the resultant relations (Kondo, 1990) Thus, power conditions are negotiated and socially constructed, they can be transformed They are not a static force Power is defined, understood, and manifested locally (Kondo, 1990) Therefore, it is critical to examine a specific campus context and determine how power conditions were manifested in that particular context To assume that only broad social categories such as gender or social class impacted power relations within a specific context would limit analysis of it Understandings of power are based on experience, in other words, on one's position

Drawing on positionality theory, the following framework for studying and defining leadership emerged

> *Positioned individuals* (assuming that individuals co-construct their location culturally, organizationally, and historically while interacting with others) *possessing multifaceted identities* (assuming that individuals are shaped by formative conditions such as family, culture, community, religion, etc) *within a particular context* (assuming most contexts are fairly unique and particular) *influenced by conditions of power* (assuming power relationships and dynamics pervade culture, social structures, and history) *construct* (develop understandings based on their situatedness or positionality and particular context and negotiate this understanding with other individuals' understandings) *leadership in unique (individual level) and collective (group level) ways simultaneously* (assuming interdependent webs of situated individuals connected by their changing positions on various issues) [6]

Research Design

I conducted an in-depth case study of an institution to explore power conditions, which are critical to understanding positionality Another goal of this study was to explore leadership more broadly throughout the institution than has been done in previous studies Because I had several positional conditions that I wanted to explore, this single case study approach allowed me to focus on the intersection of the individual, the group, and the institution and to maximize within-case variation Open-ended, semi-structured interviews, rather than a survey or structured interview, allowed interviewees to present their understandings of leadership without the researcher imposing "traditional" models or definitions of leadership

Multi-Case Selection

This study examined multiple levels of an organization the institutional, group, and individual level I chose the case based on "typical" case sampling in order to avoid rejection on the grounds that it was known to arise from special or deviant cases (Lincoln & Guba, 1985) In order to explore the positional characteristics of race/ethnicity and gender, I selected an institution with structural diversity in terms of women and people of color as a part of the faculty, staff, and student body I chose a community college, because community colleges tend to be more structurally diverse than other institutional types in higher education The institution had undergone (within the past eight years) a change to a participatory leadership model called servant leadership, similar to many campuses across the country[7]

I utilized a "positioned informant" approach for selecting people to interview within the institution (Conrad, Haworth, & Millar, 1993) I sampled specifically for gender, race/ethnicity, and role within the institution I used sequential sampling strategy in order to explore positional factors important on the particular campus Based on conversations with informants, I added three additional sampling criteria (1) role as administrator or faculty, (2) field of study (transfer or vocational), and (3) level of administration (central or executive vs non-central or divisional)

Summary of within-site selection of interviews I interviewed 36 individuals Table 1 lists interviewed faculty members by position, and Table 2 lists interviewed administrators by position

Data Collection and Analysis

Studies of leadership have identified multiple sources of evidence and triangulation of data as helpful in understanding complex phenomena such as leadership (Yukl, 1989) Thus, I utilized multiple methods to understand leadership, including interviews, document analysis (records

TABLE 1
Faculty Interview Sample

	Careers		Liberal Studies		
	Person of Color	Caucasian	Person of Color	Caucasian	Total
Male	3	3	3	3	12
Female	3	3	3	3	12
Total	6	6	6	6	24

NOTE *Only full-time faculty were interviewed They were within various ranks 9 instructors, 8 assistant and associate professors and 7 full professors, 9 were tenured and 15 were nontenured faculty, 5 had Doctorates, 15 had Master's, 4 had Bachelor's degrees*

TABLE 2
Administrator Interview Sample

	Central		Noncentral		
	Person of Color	Caucasian	Person of Color	Caucasian	Total
Male	1	2	2	1	6
Female	2	1	1	2	6
Total	3	3	3	3	12

NOTE *4 held doctorates, 6 held Master's, and 2 held Bachelor's degrees, 6 of the administrators had been faculty members*

extending back twenty-five years at the schoolwide, division, and department level, e g , strategic plans, accreditation reports, minutes from meetings, consultant reports), observations, and an analysis of the physical environment I observed the campus over a six-month period, including the following types of events faculty union, department, division, and schoolwide team meetings, campus training, ceremonies, and celebrations I relied mostly on interviews, because my interest was in understanding how different individuals and groups within the institution construct leadership The interviews focused on campus participants' personal philosophies of leadership, perceptions of campus leadership, and influences on their beliefs about leadership I used categorical and componential analysis to understand shared trends among people of different positionality (Spradley, 1979)[8]

Limitations

An exploration of race/ethnicity from the perspective of different subgroups, such as African-Africans, Hispanics or Latinos/Latinas, and Native Americans, was not possible because there were not enough people of color on this campus to make such a comparison

Interpretations

Institutional Context of Power Equivocal Community College (ECC)[9]

ECC is an urban campus located in the Midwest It is a fairly large community college with an enrollment of over 20,000 students, over 500 full-time employees, and over 1000 part-time employees The curriculum has two emphases—transfer or liberal studies and vocational program Historically, it has put more emphasis on vocational programming—numbers of programs, faculty, students, and budgetary priorities Over the years, many different power conditions and relationships have evolved

For twenty years, ECC had a president with an authoritative, hierarchical style—President Traditional Under this president, the campus culture was based on entrepreneurship, individualism, and competition It had a highly decentralized structure, but strict chain and command management Eight years ago, a president of color—President Innovative—came to the campus, charged by the board to encourage participatory governance and diversity initiatives, to reassess the mission, and to examine finances The new president initiated several changes, such as a new organizational culture and structure (leadership teams, reduction of middle management by 30%, collaboration by assigning people to more than one division, decision making pushed down to the lower levels, a new leadership model—called servant leadership—and a new mission statement and values statement)

Over the years, power relations between faculty and administrators, between liberal studies and careers faculty, between central and noncentral administrators, and between change-oriented individuals and critics created tensions at ECC Faculty and administrators noted that the bargaining process itself was adversarial and tended to strain their relations Faculty thought they had been exploited, because they had consistently been the lowest-paid faculty in the state over the last thirty years The faculty had raised concern over a new governance model proposed by the president, which the Board of Trustees had recently adopted, making the Board less involved with the day-to-day management of the institution The Board had served as an advocate for the faculty since the early 1980s, when a pro-union majority was elected to the Board

Historically, relationships between the liberal studies and the vocational/careers faculty had been strained This resulted from a history of competition, the preferential treatment that the careers faculty had received under the prior president, and now the new mission, values, and institutional structure of the college [10] During the campus's early history, the careers division had received a disproportionate share of resources and recognition, their function had been central to the mission of the organization In addition, the past president seemed to have favored the careers programs, and most campus participants had noted the favoritism

Several power conditions served to position central and noncentral administrators under the new president The downsizing, as a result of the reorganization, was noted by campus participants as affecting noncentral administrators more than any other employees In addition, the more centralized structure under the new president made noncentral administrators feel as if they had lost power, control, and autonomy

Another distinction among people on campus was whether they tended to have a "change-oriented" point of view (those who were helping to build the institution) or the point of view of a "critic" (those who were examining or challenging the institution) Change-oriented individuals had been low-level managers in the previous culture, many were promoted to central- or high-level administrative positions during the reorganization This group noted that they had been disempowered in the previous campus culture, where maintaining the status quo had been the priority They described a great degree of empowerment within the new culture, where experimentation and building were rewarded Those with the perspective of a critic used to exert influence or power through the unions, however, they appeared to have less influence now as the power of the unions declined Although they exerted less influence on the institution, this group tended to be vocal, articulate, and visible These individuals communicated that they were not being allowed to be a part of the new culture because they were questioning it

Perspectives of Campus Leadership

There are four perspectives on campus leadership that emerged from the interviews and that are related to individuals' positionalities Due to space constraints, only three of these perspectives will be discussed in this article As I noted earlier, power conditions serve to position people by field of study, role within the institution, administrative level, and perspective on the campus (critics or change-oriented individuals) [11] The resulting groups, who appear to be positioned by power relations, construct campus leadership differently from each other, and they all appear to maintain a partial perspective [12]

The following are the three perspectives of campus leadership with the positioned groups that predominantly held them (1) *Servant leaders*—Liberal Studies faculty, and change-oriented individuals, (2) *Servants to the central leadership*—Careers faculty, noncentral administrators, and critics, and (3) *Paper Pushers*—faculty [13] For each group, the quote following the title are the words the interviewees used to describe their perspective One methodological note of importance Within the description of results, the sections describing the leadership perspective before the quotes are based on in-depth ethnographic data and are not merely the researcher's interpretations

Although I highlight the relationship between group positioning and interpretations of leadership in the results section, it should be emphasized that individuals have complex identities with several different positional factors overlapping For example, a campus member might be a woman, person of color, faculty member, from the Careers area with a change-oriented perspective resulting in a unique interpretation of leadership. In order to emphasize the way people's identities are complex, a unique voice is represented within each section, illustrating the overlap of positional conditions and the fluid way that power conditions operate and the manner in which people negotiate these power conditions. Also, I am not suggesting that positioning is the only condition that is related to these various perspectives; instead I argue that *positioning plays a major role in shaping one's perspective*. (See Kezar, 1996 for other conditions that impact beyond positioning.)

Group 1. Servant Leaders—"When the people lead, the leader will follow."

Those who believed the servant leadership model was operating in practice described leadership as a process involving the whole campus, as collective or shared. Individual leaders were less visible. They emphasized that leadership was no longer positional or hierarchical; anyone within the organization could be a leader. Those who were leaders acted as facilitators helping people to collaborate, to work as teams, and to be empowered through shared responsibility. This first passage describes the president as a symbol of the new leadership culture in that the president acts as a facilitator and servant, empowering everyone to lead. In addition, the president acts in nonhierarchical, nonpower-based ways and does not distinguish himself from others.

> *Faculty member, Liberal Studies:* I think the president is really a symbol of this new leadership culture. To give you an example, I was at a training session recently and the president was also there. *We* were working collectively on this problem; it impressed me to see the president on his knees distributing papers while *we* were giving direction. That is a true leader. There was very little distinction between he and *us*. If you walked in and were asked to pick out who is the president of this institution, you might have guessed somebody who was standing up in the back of the group giving direction. What the president brought to *us* was that *we* are all human beings, not in positions that differentiate *us*. He is not the president but just another person. Also the president is not directive; he doesn't tell people what to do. He has resisted doing this, even though many people desperately want him to. What he is trying to communicate to *us* is: think for yourself and work together. (Emphasis added.)

People espousing the servant leadership perspective described the leadership environment or context as open and trusting and as encouraging of risk-taking and creativity. They saw leaders in this context as working to develop a collective vision and value equality. This group discussed how the structure of the institution had been greatly altered to support collaboration and teaming through the blurring of roles and divisions.

In terms of positioning, members of the central administration and

Liberal Studies faculty tended to construct campus leadership within the servant leadership model The central administration gained power and control with the move away from the decentralized unit college structure Furthermore, the model's emphasis on shared responsibilities helped to meet the Board of Trustee's goal of increased efficiency and improved the Board's opinion of the central administration The Liberal Studies faculty appeared more open to the new leadership script because they had been disempowered under the old leadership script Several Liberal Studies faculty appeared to have benefited from their allegiance to the "new rhetoric" in terms of resources and recognition Thus, both groups acquired some degree of privilege as a result of this model The following passages are typical of the language used to describe leadership by individuals within this perspective

> *Faculty member, Liberal Studies* First, the model says that leadership occurs at all levels It is not only the purview of top managers Leadership happens everywhere, you are not born a leader or just in a position of leadership *We* are utilizing a team approach, open communication, open environment where decisions are made at the lowest level Leaders do not direct, they help people along Leadership is more a facilitation skill, not in the isolation sense, but that *we* are deeply involved with people
>
> *Administrator* *We* now have a collective vision across the division and on a collegewide basis *We* are working together to see where the whole college is going Now many of the decisions that used to be made in what are typically seen as leadership positions are being made by others In addition to the collective decision making is the collective vision The president keeps saying, over and over, and over again, *we* are going to figure out together what kind of college *we* are going to be and where *we* are going (Emphasis added)

These passages reflect a pattern in the language of those who hold this perspective They were likely to use community-oriented language such as "we" or "us "

There were also unique voices among those who discussed the dominant leadership script For example, one Careers faculty member was a true believer in the new culture, this was quite atypical During the interview she mentioned that she came from a subfield that had not been rewarded by the past president and that had always been treated badly by the other programs in the Careers division The following passage reflects a unique voice within this perspective

> Faculty member, Careers That is a funny thing, when I was reading through your questions you are asking who are the leaders on campus? I just cannot come up with six names and say these are the people as I used to be able to Because what has really happened is that we have developed lots of committees, and on these committees you will find a dean, a vice president, a part-time faculty person, a support person, a mix of people On each of these

> committees there has never emerged a position of power There has been such total equality on these meetings Even the person who is a support person, who typically does what people do not feel is as much thinking as a dean or vice president, they have felt very free to give their opinions Each meeting we ask who will facilitate the next meeting, and it is never the same person, it moves around and it is voluntary

Group 2 Servants to the Central Administration—"We are all servants to the central administration "

Careers faculty, noncentral administrators, and some critics constructed campus leadership in practice as remaining hierarchical, position-based, with a "command and control" orientation These individuals generally reported that someone else's priorities were still driving the college's decision making, a few decision makers tended to make decisions in isolation from those affected Campus participants described a system where teams were advisory without "really" having much authority, power, or perhaps even influence These faculty and noncentral administrators questioned whether position-based leadership had actually been abandoned, because it seemed that a few people in the central administration tended to make most of the decisions I was quite surprised to hear at a union meeting that faculty had been told by central administrators not to attend certain planning meetings This did not reflect the open environment represented by the new values and servant leadership model Although they acknowledged that there was a "new rhetoric" discussed on campus, they did not see that the rhetoric had taken hold as practice Most people who maintained this perspective did think that the new leadership script, values, and beliefs were appropriate for the campus, but these had not yet come into common usage

Careers faculty, noncentral administrators, and critics all lost power in some way as a result of the new culture being put in place Careers faculty lost resources and thought that the organizational structure, values, and mission had been changed in such a way that their ability to succeed was impaired Noncentral administrators (i e , division- and department-level administrators) had been greatly reduced in number as a result of the change to the new leadership culture, and those who remained lost power in the change from a more decentralized to a more centralized campus Critics used to have a great deal of influence through their involvement with the unions, the new culture left the unions with a less central role because of its emphasis on collaboration rather than confrontation Other critics lost power in that their individual, outspoken voices used to be quite influential In this new environment they were one set of many sets of voices It appears that power is related to the way all these people construct campus leadership

This passage by a Careers faculty member summarizes the general concerns of people who construct leadership as being "servant to the central administration"

> *Faculty member, Careers, critical* I buy into this new model I think that it would be an ideal place if indeed the lower levels could make decisions and committees were empowered as they used to be in many ways But what happens is that the decisions are made, more like recommendations, and what the committee recommends often does not happen, so it is not really vested with authority And if the committee comes up with the "wrong" suggestion then they will pass this information on to the next committee and then *it* comes up with the right answer, that *'they'* want—then the committee has made a decision I'll tell you what servant leadership is, it is the faculty are servants to what the leadership wants *They* are in truth living by the old model that everything gets filtered by a higher level and that they only listen to the level they are at It doesn't feel flat It is a bubble way at the top, separate from down here, a pyramid (Emphasis added)

Notice the change in language from the first section where campus participants emphasize "we" as they describe leadership This group tends to use language that emphasizes separation such as "they," "above," "below," and "underneath" Many faculty and noncentral administrators provided examples of this description of campus leadership I only present two examples below, but individuals with this perspective "Servants to the administration" provided over 50 different examples

> *Faculty member, Careers, critical* The provost held up a memo for five months about a request for quarter-time release time for one person She changed the language slightly What is central administration doing with this small task? The policy or guidelines should be clear, and then we should be able to operate within them, or at least list things we absolutely can't do because it would break a law Let people make mistakes, next time they will know better That is a learning institution, that is the rhetoric
>
> *Faculty member, Careers* I submitted a course to be adjudicated for the CORE (required curriculum) From what I can gather from the committee, they were very impressed with the way the course was put together Of all the courses that were submitted for the X core, this one had a chance to be tweaked to be part of the core requirement The committee said, just to be sure, they ran the course by the provost But the provost said, in no way can this be considered for the CORE, because it is not a general education course That signals that the committee was not empowered The committee decided it would work, and then she said no, even if there was discussion, her final response was no So she decided, not the committee I reviewed the guidelines and there was nothing in there that said that it had to be a general education course

These examples show how teams did not appear to have the power expressed within the servant leadership model Instead, a perception of control, individual decision making, secrecy, and lack of openness was prevalent within many peoples' interpretations of leadership

There were also a few unique voices within this perspective One of the newer Liberal Studies faculty conceptualized that the campus was becoming more centralized and noted that decision making had not been moved down to the lower levels This faculty member had not been at this college during the time the Liberal Studies faculty were disempowered His only experience at this campus was a more privileged one, or at least one of equal status In other words, he maintained this unique perspective because he was not influenced by the tradition of being disempowered as a faculty member on this campus by the previous president He notes

> *Faculty member, Liberal Studies* They are doing bizarre consolidation, things that we should be able to do at the local level For example, the syllabus, in order to make a change in a syllabus, it has to go through academic affairs at the divisional level I could just go to my computer and make the change in a minute, it is ridiculous that it has do go to the division level to have this change And I get the impression that the reason that this has happened is control Therefore, it seems very mixed We want decisions down low, but they are taking others away Also, it seems like most committees are created from the top down, and then we are asked to participate in them If you are going to have team management, how can you pick the leaders from the top The choices do not come from *inside, below* It comes from the *top* They often don't reflect our interest (Emphasis added)

Group 3 Paper Pushers—"We are pushing paper but not leading "

Liberal Studies faculty and administrators tended to see involvement in teams and administrative work as the most appropriate form of faculty leadership With the past president, campus leadership was associated exclusively with the administration One faculty member noted that leadership was always seen as the purview of administrators, not of faculty, she always thought of herself as "just" a faculty member The new leadership culture seemed to open up leadership to faculty both structurally (e g , new roles, teams) and in terminology (e g , collective and collaborative) When faculty discussed involvement in leadership, for the most part, they talked about administrative work Many people used the terms leadership and management interchangeably Liberal Studies faculty members were more likely to have assimilated the new definition of leadership with administrative work This may have been a result of this group becoming empowered within the new campus culture The following passage illustrates how Liberal Studies faculty appeared to have assimilated the campus script for leadership

> *Faculty member, Liberal Studies* Well, before the new culture, I didn't do a lot of moving and shaking All of a sudden, I was in charge of a class with 300 students and managing other part-time instructors, so bingo, I was a manager-leader And at the same time one of the leaders of the other courses was having major problems So, I was there to manage several courses

In contrast, a group of faculty with a strong "professorial" orientation from both Careers and Liberal Studies opposed the definition of leadership as administrative work This group believed that faculty leadership should be more broadly defined to include work with the community, students, discipline or field, and classroom activities They believed that this definition of leadership and associated administrative demands was reconstructing faculty roles Being positioned by power conditions, i e , an imposed construction of their role, appears to be related to the way this group defined campus leadership Many of these faculty were not considered leaders by their peers, yet, they tended to resist the campus leadership script and defined themselves as part of the leadership process This group questioned the inclusiveness of the new leadership model and believed it was only inclusive of individuals who adopted the campus script Several faculty members expressed frustration with the campus-imposed definition of leadership as administrative work

> *Faculty member, Careers* I think of myself as a leader, but not the way the campus defines it through these titles, administrative work, and committees The way it is organized here, if we are leaders in our disciplinary communities, in the community, or in a business capacity, it is difficult to be recognized as leaders It is very limiting, the way they see us For instance, I serve on the Board of Directors for the state in my area of expertise Before we became so efficient and effective, I was given some slack for all these activities, but not anymore So they haven't addressed this conflict in the new culture of efficiency
>
> *Faculty member, Liberal Studies* It seems like the administrative duties are more valued than anything else Our campus is just overwhelmingly administrative The college should not be about the administration, the administration should be background We are pushing paper but not leading Unfortunately, on this campus, if you do paperwork you are a leader I consider myself as a leader, but as a faculty member and within the community But, the work that is valued is administration

Earlier, I presented other quotations illustrating how power conditions can shape and frame the way individuals interpret their environment These quotations provide additional evidence about positionality by illustrating how different experiences (faculty background and outside experiences such as Board of Directors or community involvement) can relate to different philosophies of leadership The members of this group not only differed in their interpretation because of power conditions that shaped their interpretation (being a faculty member), but because their background and values as faculty members created a unique perspective

A second trend became apparent in these data power conditions from other contexts are related to this Paper-Pushing perception of campus leadership For example, the faculty member who spoke in the first passage came from a four-year institution where faculty had an empowered status That experience of being on equal power relations with administrators appears to be related to the way she constructed leadership within her current context This was the case for a few other faculty who had moved to a campus where they had less power than they had in their previous institutions Furthermore, individuals with traditional academic training and/or strong identification with the role of faculty were more likely to perceive campus leadership this way If these faculty had been given the chance to define leadership for themselves, it would probably have taken on uniquely academic features, emphasizing the classroom, curriculum, disciplinary issues, or community concerns

It is quite remarkable how individuals conceptualize campus leadership differently and how individuals who see leadership in similar ways tend to be positioned within groups that are based on power relations on campus To summarize some of the relationships described in the analysis, "Servant Leaders" embraced the perspective that the campus was a truly inclusive, participatory leadership environment The groups within this perspective became empowered when the new president came to the campus The "Servants to the Central Administration" saw the campus as continuing to operate in a hierarchical, authority- based manner where few people were involved in the leadership process The groups within this perspective were disempowered when the new president came into power The "Paper Pusher" group illustrates the way that individuals resist power conditions within their particular context Their perspective illustrates power, because these individuals exercised human agency by constructing their views of leadership differently from the servant leadership model, which maintained that administrative work is leadership This group of faculty had begun to redefine leadership and find ways to be leaders outside the official leadership mechanism This occurs on many campuses, yet, a more functional leadership culture would invite and include these voices I also highlighted voices that illustrated the negotiation of power relations (faculty empowered on one campus and disempowered on another) and the overlap of various positionalities, such as shown by the Careers faculty member who saw the campus leadership process as empowering (in Servant Leaders section) and the newer Liberal Studies faculty member, who conceptualized the campus as becoming more centralized (within the Servants to the Central Administration section)

Contribution to Research

This in-depth case study charts a new course for leadership research by illuminating several theoretical directions (1) it reveals the possibility that multiple leadership perspectives exist on every campus, (2) it provides additional evidence that leadership models need to be expanded or reconceptualized in order to acknowledge multiple and diverse perspectives, (3) it presents the applicability of positionality theory, (4) it suggests future areas for research related to other positional conditions that are probably related to leadership beliefs, (5) it illuminates the relationship of power conditions to leadership perspectives, and (6) it provides evidence of the importance of local power conditions for understanding positionality and leadership

First, leadership tends to be studied as a unitary phenomenon This study reveals the many oppositional constructions of leadership that may exist on a campus The three different leadership perspectives—servant leadership, servants to the central administration, pushing paper—provide evidence of the ways that individuals' experiences impact their views of leadership More research on these multiple perspectives may help us to understand why leadership, governance, and efforts at change often do not unfold as planned

Second, this study contributes to the mounting evidence that traditional models do not encompass the multiple ways that leadership is understood by diverse groups of people (Bensimon & Neumann, 1993) It moves beyond earlier research that examined only one group—women—demonstrating how faculty and middle- and lower-level administrators, for example, define leadership differently This new emphasis is important because it moves research beyond a lens of gender to a lens of power Although gender is significant, it does not encompass the many complex ways in which individuals are affected by power conditions and how this effect shapes their distinct perspectives For example, moving to a more collaborative and process-oriented approach to leadership—as suggested in feminist theories of leadership— would not have accommodated the varying perspectives

Third, it provides examples of the applicability of positionality theory for understanding multiple perspectives Leadership perspectives appear to be impacted by several different aspects of individuals' identities Furthermore, these perspectives were related to their positionality—or positioning on campus by power conditions such as history of relationships, differential allocation of resources, salary arrangements, and collective bargaining processes Without this theory, the reasons for different perspectives would be unclear, and the way they are enacted would have been oversimplified

Fourth, this study reveals a new avenue for research Future research could focus on other conditions that may serve to position individuals within organizations, e g , social class, discipline or subfield, or sexual orientation In addition, research focused on positionality should continue to be aware of local power conditions, these were central to understanding the multiple leadership perspectives within this context I could not have anticipated that field of study would be such a crucial positional condition or that degree status would emerge as a condition I thought race/ethnicity would be a more significant factor, but it only emerged in personal philosophies of leadership, not in perspectives of campus leadership

Fifth, this study illustrates the prevalence of power conditions within campus environments, the way these power conditions serve to position people within the context, and the relationship of power conditions to the ways individuals construct leadership This emphasis on power is extremely important, because very few studies collect detailed data and are able to illuminate the way power conditions impact campus processes

Lastly, it highlighted the significance of local power conditions for understanding different perspectives Although broad social categories, such as a person's gender or being a faculty member on a community college campus, help us to understand possible power conditions operating within environments, power conditions that emerged in this study were closely tied to the particular history of the campus and the individual background of individuals In closing, positionality appears to be a powerful theory for better understanding leadership on college campuses

Notes

[1] The term model and image are used interchangeably Model is commonly used by scholars, whereas practitioners tend to describe images or metaphors of leadership Both are definitions of or understandings of what leadership is and how it is enacted

[2] In this article I focus on the specific example of how power conditions on campus, e g , occupational status, location within the academic bureaucracy, resulted in *distinct group* interpretations of leadership I focus on interpretations of leadership, rather than beliefs/philosophies, because interpretations of existing leadership illustrate the impact of power conditions on day to day practice

[3] Six major research traditions have been identified for studying or understanding leadership (1) trait theories, (2) behavioral theories, (3) power/influence theories, (4) situational/contingency theories, (5) cognitive theories, and (6) cultural or symbolic theories (Bass, 1990, Bensimon, Neumann, & Birnbaum, 1989, Hollander, 1985, House & Baetz, 1974, Yukl, 1989) Most studies within these research traditions have been conducted

within a positivist framework For example, researchers utilizing these trait theories viewed traits as identical for all leaders, transcending all contexts (Bensimon, Neumann, & Birnbaum, 1989) Further, it was assumed that all people perceive traits of leaders similarly The emphasis on universal traits and universal perception of traits reflects the positivist assumptions of these research traditions

[4] Women's leadership is conceived in the plural and is meant to include women of different races, ethnicities, sexual orientations, etc No one experience for women is implied or hypothesized

[5] Faculty, trustees, and alumni were, for the most part, asked to describe the leadership of the president (Bensimon, Neumann, & Birnbaum, 1991, Birnbaum, 1992)

[6] The author developed this framework by analyzing the assumptions from positionality theory and applying them to understand the problem of understanding different leadership perspectives or epistemologies

[7] The results of this study are not meant to be generalized to all community colleges or other higher education institutions, I am generalizing the case to theory The sample is chosen to assure that I have not selected an unusual case

[8] Categorical analysis emphasizes the identification of categories and patterns Componential analysis is the "systematic search for the attributes (components of meaning) associated with cultural symbols" and in language (Spradley, 1979, p 174)

[9] A pseudonym was developed in order to mask the identity of the institution

[10] Vocational and careers faculty will be used interchangeably This term refers to faculty in areas such as business, technology, criminal justice, allied health

[11] Race/ethnicity and gender were not related to descriptions of campus leadership, but to personal philosophies of leadership (described in Kezar, in press)

[12] In positionality theory all perspectives are considered partial All are situated knowledges that are influenced, perhaps limited, by an individual's particularized experience Thus, the different descriptions that I present are all conceptualized as partial perspectives

[13] Due to space constraints, only three of four perspectives are presented

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Book Reviews

As If Learning Mattered Reforming Higher Education, by
Richard E Miller Ithaca, NY Cornell University Press,
1998 216+ pp $39 95 ($15 95)

DOUGLAS STEEPLES, Mercer University

Miller opens his book with a familiar passage from Joseph Heller's novel, *Catch-22*

> *Orr was crazy and could be grounded All he had to do was ask, and as soon as he did, he would no longer be crazy and would have to fly more missions*

Observing that no work has better captured the bureaucratic absurdities that subject us to connected but mutually exclusive lines of reasoning, Miller relates a personal story that shows how such "catches" pervade even higher education A major university denied him admission to graduate programs both in English and creative writing, then invited him to teach composition Unqualified to be a student, he was deemed fit to teach Of course this contradiction was more apparent than genuine It reflected a deeper reality that our universities apply different standards to different functions The marginal theoretically teach the marginal, the "best" teach advanced undergraduate and graduate seminars to the "best" The trouble is that such reasoning wrongly credits colleges and universities with a special ability to "reliably sort people into the right categories" (p 4) The strict organizational logic that governs higher education has not fairly nor capably sorted our citizens into a hierarchy of the credentialed Instead, it maintains a system that perpetuates serious inequalities

Six chapters unfold the argument The first treats several ambitious attempts at educational reform It finds that these are highly unlikely to succeed This is because even reform-minded professors are enmeshed in university organizational structures and inherited practices that are potent constraints Successful reform efforts are thus most apt to occur in local institutional contexts, where individuals can effect modest changes within their spheres of influence

The next chapter is a case study showing how Matthew Arnold's voluminous writings in literary and cultural criticism and his proposals as Britain's Inspector of Schools resulted in scant "material change in how education was carried out" (p 82) Chapter 3 shows how a democratic hope that guided visionaries to mount the Great Books curriculum and educational reforms at Columbia and Chicago brought similarly puny results The dream that average students could "establish a meaningful and productive relationship with a wide array of complex texts" (p 119) shattered against the prejudice that a truly democratic education would recognize how ordinary average students are and would advance them tediously through work in undemanding textbooks Nor, as Chapter 4 shows, did the British Open University herald a new era of democratic educational opportunity for the marginalized Instead, by preventing students from meeting with faculty members and each other, it ensured that they would not "articulate a common set of interests capable of threatening the status quo" (pp 154–155) Creation of the Open University actually made it easier to avoid issues of class and race that were central in perpetuating inequality of educational attainment Not even teaching approaches based on ethnography, Chapter 5 reveals, challenge prevailing arrangements They, too, end up affirming—and making more painfully evident—the role of education as a means of acculturating the masses to fit them into the established system

Not until the final chapter do we meet the actual subject of *As if Learning Mattered* Its regard for reforming higher education turns out to be tangential Miller's true concern is the academic marketplace, in particular that part of it serving people with advanced degrees in English How, he asks, can we reform a system that seduces talented undergraduates with the prospect of lives spent in communion with great works of literature and professional lives spent with bright undergraduate and postgraduate learners equally excited about exploring such works and then consigns them to marginal, often temporary posts teaching composition, if they find jobs at all?

Although pleased that such eminences as Cary Nelson and Michael Berubé concede the existence of a problem, Miller rejects their proposed remedies Neither prolonged doctoral programs nor expanded opportunities to teach composition hold much promise After all if, as Nelson puts it, grading hundreds of composition papers is *"demoralizing and intolerable"* (p 200), one is scarcely improving opportunities or academia by assigning even more of this drudgery to graduate students and junior faculty members What is needed first, is recognition that teaching composition (and, we might add, low-level survey and service courses in all disciplines) is an opportunity We must revise our view of it accordingly Second, we should achieve a proper understanding of the role of faculty members as intellectual bureaucrats who function in complex organizations Then we shall be able to work intelligently for change within the system

Miller's most important contribution is his use of administrative and bureaucratic theory to illuminate the lives of institutions of higher education His return repeatedly to constraints that retard democratization, defined as expanding access to higher learning *and to employment as faculty members,* is also suggestive His reliance on sources from social and literary theory is imaginative Nevertheless, the book is disappointing, the whole is less than the sum of its parts

The most serious problem is Miller's apparent (but unstated) premise that the mission of higher education is to employ professors We need to advance the argument far beyond this point There *is* a systemic problem needing discussion Several writers, especially Lewis Mayhew (1977, 1979, 1990), have addressed it It is that in economic terms our enterprise suffers from excess capacity For a variety of reasons, many of which place private advantage (of local politicians, development interests, faculties, institutions, and so on) before civic purposes, we have overbuilt colleges and universities In doing so, we have expanded our capacity to produce new professors more rapidly than we generate posts for them As long as this condition persists, those who cannot find faculty appointments and those who find only marginal work with undesirable teaching assignments will continue to bear contradictions and frustrations These are not new Life has never been fair, although we can make it more so It is a kind of romantic 1960s radicalism to hope for much more

Use of several additional sources would have deepened Miller's remarks Reference to Jerome Bruner, *The Culture of Education*, with its penetrating treatment of the interplay of genetics and culture in learning, would have grounded his book more firmly in cognitive psychology John Ellis, *Literature Lost*, could have strengthened discussion of reform proposals relating to the Great Books canon David Labaree, *How to Succeed in School Without Really Learning*, offers a wide-ranging consideration of the competition between private interests and the public welfare in shaping educational policy Robert Scholes, *The Rise and Fall of English*, offers important cautions about the degree to which it is possible to teach writing at all Rudolph Weingartner (1993), *Undergraduate Education*, sets out a particularly rich conceptual basis from which to consider his subject

Though flawed, this volume is provocative and deserves wide attention in higher education

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The Sun Still Shone Professors Talk About Retirement,
by Lorraine T Dorfman Iowa City University of
Iowa Press, 1997 189+ pp $21 95

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First there was *Snow on the Roof, Fire in the Furnace* (Bland & Bergquist, 1997), and now there is Lorraine Dorfman's *The Sun Still Shone Professors*

Talk About Retirement In this context, the latter title refers to one faculty interviewee's comment about the transition to retirement and the observation that, after retirement, the sun still comes up each day The author is a professor of social work specializing in aging studies, and she brings this perspective to the book by addressing some of the basic issues that faculty confront as they adapt to retirement

The Sun Still Shone is based on an ambitious qualitative research study spanning eleven years (1978–1989) and involved interviews with retired faculty from several different institutions and institutional types in the United States a public Research I University, three Private Liberal Arts Colleges, and a Comprehensive University This was combined with another qualitative study of retired faculty from two "old civic" Universities in the United Kingdom and represents the lone cross-national study of retired academics

In Chapter 1, Dorfman provides the reader with an introduction to the issues surrounding college and university faculty just prior to and subsequent to their retirement One rationale for the book is identified immediately "The voices of professors who are already retired can offer valuable insights for future retirees and, at the same time, can provide a rich understanding of their lives as professionals" (pp 1–2) Considering the large number of faculty who are expected to retire in the next ten years, Dorfman's work functions as a road map of sorts to assist faculty in making a smooth transition into the next phase of their careers

Chapter 2 addresses the plans and processes used by faculty to get ready for retirement It includes faculty perceptions of their approaching retirement and of changes in behavior of colleagues and students, their specific plans for the timing of retirement, and experiences with individual institutional retirement programs Chapter 3 explores faculty decisions about where to live after retirement and describes influences on the decision to stay in or leave their preretirement communities Chapter 4 focuses on faculty evaluations of their retirement experiences and includes faculty suggestions for others who will retire soon Chapter 5 investigates the types and levels of professional activities that faculty continue to engage in after retirement, including research, teaching, consulting, and clinical work or practice Chapter 6 contrasts the previous chapter by setting the context of the nonprofessional leisure and service activities of retired faculty Finally, Chapter 7 summarizes the whole of the study and presents the themes that emerged from the qualitative data as well as the patterns in the lives of retired faculty In addition, the author identifies some implications of these themes and patterns for faculty development and the continuing utilization of retired faculty

One pitfall that is often faced by qualitative researchers in higher education is that of taking a solely "problem-focused approach" to the phenomenon being investigated In other words, the researcher addresses only negative aspects of the research site or interviewees' experiences to document intensity of the related issues or to demonstrate the importance of the topic Considering this, a distinct strength of *The Sun Still Shone* is that it provides a balanced view of faculty quality of life in retirement—some positive, some negative Although the vast majority of her interviewees reported on positive aspects of retirement, Dorfman does not shy away from the perceptions held by some retirees that retirement was primarily a negative experience

Three general themes emerged from the data *adaptability* to retired status and life transition of formal separation from the world of work, *continuity* of retaining lifelong patterns of thought and action, and *activity* and the changing mix of professional, leisure, and voluntary activities

Dorfman identifies a paucity of qualitative research on faculty perceptions of retirement Other qualitative works on this topic have focused on a broad range of TIAA-CREF annuitants, not just retired faculty As a result, it is difficult to place this book in context with other publications that address similar issues

Simultaneously, however, there are several ways in which this book could more easily facilitate additional qualitative research on the topic First, although the various interview protocols are included, an expanded discussion of the qualitative methodology would be helpful to clarify whether case studies were actually completed and what their roles were in the long interviews that were conducted Second, some description of the data reduction strategy that was used would assist future researchers to understand how the author made sense of the impressive amounts of data that were collected (400+ audio tape recordings from 325 faculty interviewees)

Third, some identification of the implications of the timing issues associated with the lengthy data collection time line (eleven years between 1978–1989) would also assist future researchers For example, one theme in the data focused generally on some interviewees' financial concerns during retirement, and specifically on inadequate retirement planning and subsequent income It is important to consider this theme in the context of the personal financial environment before incentive programs for faculty retirement, the sharp growth of the stock market, and popularization of stock market investing

Although the interviews were conducted before the 1994 uncapping of mandatory retirement in the United States, this book orients us well to the salient issues faced by faculty in retirement Because of the timing issues that influenced the data (e g , prevalence of "pretechnology" concerns, outdated obstacles to information access and retrieval, need for staff support for typing assistance, etc), this study begs for replication and extension to identify current faculty perceptions and experiences to better prepare the next generation of faculty retirees

This book would make an excellent addition to any course that takes a chronological approach to studying college and university faculty and could inform the work of human resources professionals striving to meet the needs of retired faculty and to enable them to continue as contributing members of their academic communities

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The Responsible Administrator An Approach to Ethics for
the Administrative Role (4th ed), by Terry L Cooper
San Francisco Jossey-Bass, 1998 304 pp $27 95

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Cooper's text draws on theoretical constructs from the literature of public administration and uses examples from that field Some modest translations are required for applications to higher education settings, but that minor effort is worth the energy involved Cases of some length and complexity are distributed throughout

Cooper commences with what he calls "levels of ethical reflection," noting that the first level involves the emotional reaction to a perceived ethical dilemma ("How could he be so dumb?" "She was just irresponsible ") At the next level moral rules come into play ("Do unto others as you would have them do unto you " "Turn the other cheek ") More sophisticated still is the level in which ethical principles ("do no harm," "honor autonomy," "be just," etc) come into play At this point, some will find Kitchener's (1985) adaptation of Beauchamp and Childress (1979) a more helpful exposition and application of quite similar ethical principles At the highest or "post ethical" level, one undertakes to define just why valuing truth or integrity or loyalty or associated principles is important

At this point, Cooper offers a decision-making model that calls on the administrator to describe the objective elements of the ethical situation, identify possible alternative courses of action, project the probable consequences of each course of action while concurrently evaluating those actions through the lenses of moral rules and ethical principles, and ultimately selecting a course of action that is consistent with one's ability to accept the outcome(s) of that course of action

Cooper's discussion of "modern vs postmodern society" is likely to be of no more than cursory interest to academic administrators However, buried within this discussion are challenges to the assumption that "equality is the equivalent of equity," an issue at the heart of affirmative action programs Social equity as a compelling ethical concern is clearly endorsed

Cooper distinguishes between two types of administrative responsibility objective responsibility (expectations of organizational superiors, adherence to agency policies, the preferences and demands of the population being served), and subjective responsibility (personally held feelings and beliefs about what responsibility means) Contained within each of these categories is a host of potential ethical dilemmas and conflicts (responsibility to superiors vs responsibility to subordinates vs responsibility to a larger public good, etc ,etc) None of these conflicting obligations will come as a surprise to the practicing college administrator Cooper's most effective and useful argument may exist in his observations about subjective responsibility, where he asserts that "its conscious and consistent development is essential for carrying out objective responsibility in a consistent, rational, and dependable fashion" (p 83)

One of Cooper's more interesting proposals is that we engage in what he terms "moral creativity," a process involving analyses of specific circumstances, roles, codes and values, projection of the consequences of various courses of action and one's feelings about employing each of those courses of action, and finally, how one would justify the selection of the particular solution to a larger public Carried to an extreme, "moral creativity" could lead to the favoring of the greatest good for the greatest number, a somewhat dubious and potentially dangerous operating principle

Curiously, nowhere do we find a specific discussion of the role conflicts involved when affectional relationships develop between members of an agency The issues of unequal power and consequent potential for exploitation would seem to warrant greater attention

Cooper argues that designing environments supportive of ethical conduct is a primary ethical obligation of the administrator and that agency policies, legislation, and monitoring activities can be employed to that end The supporting roles of professional associations and their ethical codes, and incorporating ethical issues into professional education are seen as complimentary and essential to maintaining an ethical environment One is reminded here of Brown's articulate plea for the formation of an "ethical community" (1985) Appropriate attention is given to the utility of professional ethical codes and their value as educational tools, but Cooper consistently (and wisely, in my judgment) underscores the primacy of the core ethical values of the individual

Taken as a whole, Cooper's approach to ethically responsible behavior on the part of administrators acknowledges the realities of politics and political pressures and how organizational norms can operate to contravene acting in behalf of the public good His discussion of organizational cultures and how they act to support or inhibit ethical conduct is particularly helpful

Educational administrators will have to make allowances for the hierarchical structures that drive the cases and many of the arguments presented by Cooper Given the democratic leanings of academe (which not infrequently verge on anarchy), a sophisticated understanding of the manner in which college and university communities really function is a precondition to the implementation of discourse about ethics in that setting Some will find it useful to read Fried's Ethics for Today's Campus (1997) in conjunction with Cooper, because Fried provides cases and issues that reflect the current academic climate

The Responsible Administrator is a useful addition to the working library of faculty leaders and academic administrators The cases are fairly easily translated into academic settings The roles and respective contributions of agencies in the public sector and the responsibilities of individuals who are administrators have their counterparts on all of our campuses Cooper enriches our journey toward becoming more ethically accountable

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Managed Professionals Unionized Faculty and Restructuring Academic Labor,
by Gary Rhoades Albany State University
of New York Press, 1998 280+ pp $73 50 ($24 95)

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Driven by the need for increased efficiency and revenue generation, the academic profession is undergoing fundamental restructuring similar to that in other professions In colleges and universities the historically dominant tenured faculty are inexorably being replaced by part-timers (42% of all faculty) and full-timers not eligible for tenure (26% of all full-time faculty) The question facing faculty and administrators has become how to accommodate these shifting faculty demographics, which, despite wishful thinking to the contrary, show no sign of reverting to a past populated by tenured faculty enjoying clearly defined careers

Recently, higher education scholars have tackled the restructuring phenomenon through examinations of the tenuring process, explorations of career alternatives within or outside tenure, and calls for broadening tenure criteria Gary Rhoades has now contributed to this burgeoning literature on the faculty career in the twenty-first century with his study of faculty in unionized settings In 1994 collective bargaining agents represented 242,221 faculty on 1,057 campuses That is 44% of full-time faculty and 26% of full- and part-time faculty nationwide, or 63% of full-time faculty and 60% of institutions in the public sector He chose unionized faculty because they are largely overlooked in the literature and because they are found predominately in public 2- and 4-year colleges and universities, which are the sectors of higher education most financially squeezed in recent years As he notes, higher education researchers are much more likely to focus on the one hundred or so research universities where they are employed than on the 3,200 other institutions that make up American higher education

The book reports the results of his study of contract provisions in 212 collective bargaining agreements for faculty in the 1990s, about 45% of all faculty contracts These 212 contracts constitute the Higher Education Contract Analysis System database, a broad and convenient tool for researchers He has chosen certain contract provisions for systematic content and statistical analyses in order to explore two key themes (1) managerial discretion and faculty autonomy, involvement and constraint in the academic work place, and (2) stratification or internal divisions among faculty In his exploration of faculty stratification, Rhoades' work is a refreshing change from much of the literature focusing exclusively on the career paths of tenure-track faculty Rhoades views faculty from the perspective of the contractual terms and conditions that have been negotiated for all faculty, full and part-time, tenurable and nontenurable He concludes that faculty members are professional employees who are managed by others Managerial discretion is broad and expanding, constraints on management and faculty involvement in decision making are increasingly limited Further, the profession is internally stratified by status and discipline Managerial flexibility serves to heighten the growing hierarchy and divisions within the academic profession

How does Rhoades reach these conclusions? He does not look at unions or unionized faculty. Nor does he compare unionized faculty to non-unionized faculty, because no comparable data set exists for the latter. Instead he looks at the language of specific provisions of contracts and reports this language and the statistical significance of its occurrence within contracts. The contractual provisions he analyzes in order to explore his two themes of managerial discretion and faculty stratification are: merit, market and equity factors in salary adjustments (Chapter 2), reorganization of academic programs, retrenchment and job security (Chapter 3), the use of part-time faculty (Chapter 4), the use of technology in delivering curricula (Chapter 5), and ownership issues in regard to faculty members' time and intellectual property (Chapter 6). The findings are summarized in Chapter 7.

In exploring these five areas Rhoades raises provocative questions. To what extent is the dispersion of faculty salaries an indicator of increasing stratification among faculty by discipline and by rank? How much flexibility do contracts give management in reconfiguring the faculty workforce? To what extent does the use of technology limit tenure-track faculty control of the curriculum when they are increasingly replaced by technology specialists and part-timers in the delivery of instruction? Who owns instructional materials for distance education and who controls whether and how they will be revised and reused? And, finally, to what extent is faculty time controlled by the organization and who owns the intellectual property faculty produce?

Each chapter reports in extensive and occasionally overwhelming detail the results of his content and statistical analyses with regard to managerial discretion, professional autonomy, and faculty stratification. The detailed findings regarding what is in and what is left out of contract provisions for each of the 5 topics will be of primary interest to unions, faculty, and administrators actually engaged in collective bargaining and familiar with its terminology.

But the book is bigger, much bigger, than the findings about contract provisions. Gary Rhoades uses the results of his study and his extensive knowledge of higher education and the sociology of professions to describe with penetrating insight the present condition of faculty. He raises provocative questions throughout the book, questions of importance to faculty and administrators in all sectors of higher education and to those responsible for policy making in associations, higher education systems, and state coordinating boards or governments. His perspectives, based upon unionized faculty in 2– and 4–year colleges and universities, add considerably to the literature on faculty. He challenges current wisdom and myths in a refreshingly blunt, outspoken style that occasionally overstates his position or the data, but, for the most part, provides new and important ways of thinking about what is happening to faculty during a time of restructuring and what this means for the future of higher education. Readers will argue with some of his points but they will also think differently about the issues he raises regardless of their position on unionization.

In the final chapter Rhoades points out that salary dispersion, programmatic reorganization, faculty retrenchment, increased use of part-time faculty, use of instructional technology, and increased organizational claims on faculty time are found within all of higher education. The impact is not only on faculty but also on the governance structures of institutions and the form and content of academic programs The ultimate question is not whether unions can effectively address Rhoades' recommendations, but how faculty can retain some measure of control over their work and the products of their work For Rhoades, no less than the preservation of future full-time faculty members' positions and their central role in colleges and universities is at stake

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